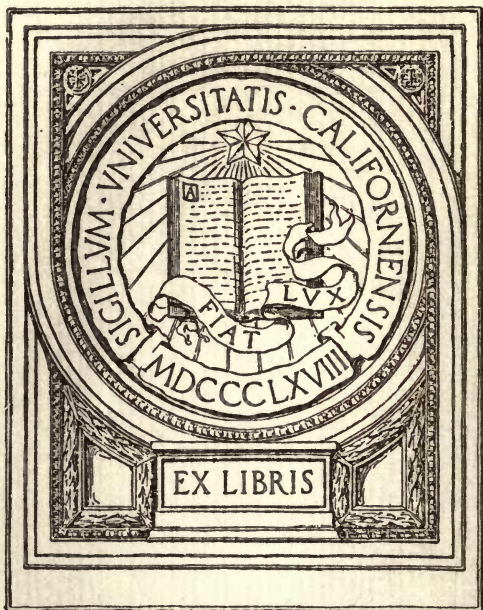


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ORNITHOLOGICAL RAMBLES.

LONDON:

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A. E. K.

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HERON ALIGHTING ON ITS NEST.

Page 27.

ORNITHOLOGICAL RAMBLES
IN
SUSSEX;
WITH
A SYSTEMATIC CATALOGUE
OF
THE BIRDS OF THAT COUNTY,
AND
REMARKS ON THEIR LOCAL DISTRIBUTION.

By A. E. KNOX, M.A., F.L.S., F.Z.S.

LONDON:
JOHN VAN VOORST, PATERNOSTER ROW.
M.DCCC.XLIX.

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PREFACE.

THE following letters were originally addressed to a friend, residing beyond the Tweed, and owe their appearance in a collected form to a subsequent suggestion that they might become a popular contribution to the Fauna of Sussex, possessing some attractions for the sportsman as well as the ornithologist.

The author cannot, however, conceal from himself, that having on the present occasion limited the sphere of his observations to a single county, it would be vain and presumptuous of him to expect that they should prove as interesting to the general reader as to those who, from local circumstances, might be supposed to feel somewhat of an enduring interest in such records, or as to an old and intimate friend, in whom "auld

lang syne" and congeniality of tastes had ensured a ready listener.

But to take a wider view of the subject. It will be admitted that the geographical position of Sussex, as a southern maritime county, with its long line of sea-coast, is favourable for observations on the migratory birds, while the remarkable variety of soil and scenery contained within its limits appears to have a considerable influence on the local distribution of many species; but without indulging in speculative theories, or attempting to follow up the various links in the chain, geological, botanical, and entomological, the author still ventures to hope that he has been able to throw some little light on these matters;—that a few sparks may be struck from the following pages, which hereafter in abler hands may be fanned into a flame, and more fully elucidate this mysterious and interesting subject.

With regard to himself, he may perhaps be allowed to say, that an ardent love of Nature has throughout life been his ruling passion, and the

study of her works his greatest delight; while a residence of many years on the coast, as well as in the interior, of Sussex, has afforded him advantages which do not fall to the lot of every local observer.

The illustrations are taken from drawings made on the spot by the author. The "Heron alighting on its Nest," as depicted in the Frontispiece, was sketched by him while concealed among the upper branches of an adjoining tree, under the circumstances narrated at page 27, and is a faithful representation of the attitude of the bird at that moment.

Although from the desultory nature of these papers he has sometimes thrown off the restraint which a rigid adherence to systematic order might have imposed upon him, yet with the view of imparting to the work a more scientific character than it would otherwise possess, and at the same time increasing its utility for purposes of reference and comparison, the arrangement observed by Mr. Yarrell in his admirable work on

British Birds, and the nomenclature adopted by that distinguished zoologist, have been adhered to in the Catalogue, as appearing to possess in the highest degree the advantages of correctness and simplicity.

That this little volume may tend to awaken a taste for similar pursuits in some who have hitherto passed unobservant along the shores and through the woods of this interesting county, and perhaps serve to assist in the diffusion of those humane and enlightened views so ably advocated by Mr. Waterton in his 'Essays on Natural History,' is the sincere wish of

THE AUTHOR.

ILLUSTRATIONS.

HERON ALIGHTING ON ITS NEST. *Frontispiece.*

THE OSPREY—RUINS OF AMBERLEY CASTLE.
To face page 47.

BEACHY HEAD IN THE BREEDING-SEASON.
To face page 107.

THE RAVEN'S CLUMP, PETWORTH PARK.
To face page 155.

ORNITHOLOGICAL RAMBLES, &c.

LETTER I.—INTRODUCTORY.

Early Influences and Recollections—Sussex—Sketch of the County—The Weald—Its Character and general Aspect—Sandstone Formation—Picturesque Scenery—The South Downs—Maritime Tract—Chichester Harbour—Selsey Bill—Pagham—Unfrequented District—Hard Weather—Wild-Fowl Shooting—Coast to the eastward of Brighton—Chalk Cliffs—Beachy Head—Pevensey Bay—Wilderness of Shingle—An Oasis in a Desert—Principal Rivers in Sussex.

MY DEAR E.

I have great pleasure in complying with your request; the very idea recalls the memory of olden time; already am I carried back in imagination to those scenes where, besides the instruction exclusively derived from *Alma mater*, we took lessons in practical Ornithology under the auspices of dame Nature herself. Again, as in bygone days, are we wandering together over the

swampy flats of Port Meadow, or exploring the sedgy banks of the Isis near Sandford Lasher, almost forgetting our hastily-moored skiffs in a prolonged search after the nest of the water-hen, or the airy fabric of the reed-warbler. Once more are we seated beneath the old rook-trees in Christ Church meadow, and congratulating the dark proprietors of the village overhead that their fortunate settlement is within the protective influence of academic laws. I have a lively recollection, too, of our delightful correspondence, when, in return for my rough notes from the west of Ireland, I received such an interesting account of your neighbourhood. But, to turn from retrospect to reality, I rejoice to think that our intercourse has only been interrupted, not annihilated, by the lapse of years.

You are quite correct in supposing that my predilection for my old pursuits is as strong as ever. It is true that I no longer listen to the roar of the Atlantic, as when I used to indite ornithological epistles to you from the wilds of Erris, but the influence of early habits has survived every vicissitude of time and place.

The eagle and the grouse, indeed, are gone; and to the dark, misty mountains, and rock-bound coast of Mayo, have succeeded the bright Downs, the wooded valleys, and the smiling shores of

Sussex. It is true that such countless myriads of water-birds are not found here during the summer months as at Down Patrick-Head,* or on the Stags of Broadhaven,† but certain members of the great natatorial division are met with during the breeding-season on different parts of the coast between Brighton and Hastings, and several of the rarer species occur during the winter, occasionally indeed in such numbers as to furnish ample occupation, and many a valuable acquisition, to the sportsman and to the collector.

But although Sussex cannot pretend to vie with the distant shores of the Sister Island, or the north of Scotland, in the number of hyperborean visitors, there is perhaps no portion of the United Kingdom that contains a greater variety of the summer birds of passage. A glance at the map will suffice to show you that our proximity to the continent, and the long line of shore from Kent to Hampshire, are favourable to an immigration of those feathered tribes, which, having passed the winter in the olive groves of Spain, or on the

* A lofty, isolated rock, near the mainland, on the precipitous coast of Mayo. A regular Babel of sea-birds during the month of May.

† A cluster of small islands outside the natural haven of the same name.

sunny plains of Africa, once more, when

“*Solvitur acris hyems gratâ vice veris et Favonî,*”

turn their faces to their native land, and revisit the green hedgerows and peaceful valleys of England: but you can hardly be prepared to take such an interest as I would fain inspire you with, in certain ornithological details to be recorded hereafter, unless you have previously some idea of the more prominent geographical divisions of Sussex, the general aspect, and the local scenery of each. I propose, therefore, to devote the remainder of this letter to such an introductory sketch as may in some degree tend to supply the deficiency.

Sussex, one of the southern maritime counties of England, is about seventy-six miles in length, and nearly thirty in its average breadth. The weald, the limits of which have been restricted by some geologists to a portion of the eastern division, may, in a more popular sense, be said to constitute the great clay valley stretching along the entire county—including the primæval forest of Anderida—commencing near Harting Combe, on the borders of Hampshire, and gradually increasing in breadth as it advances in a south-easterly direction towards the county of Kent. Its appearance is that of a generally flat, but occa-

sionally undulating, district, overgrown with brush-wood and masses of trees, among which the oak predominates in a remarkable degree, varied with patches of cultivated land, which, during the course of years, have been reclaimed from the surrounding forest.

To the south of this tract the country rises into considerable eminences, of great picturesque beauty, and even romantic character, where their northern escarpment, which is abrupt, sudden, and densely wooded, dips into the valley of the weald.

Still further to the south, a wide belt of sand intervenes between this and the Downs, and like all the geological formations contained within the county, appears to cross it diagonally from north-west to south-east. Indeed, the great variety in the character and scenery of these districts is very remarkable, and cannot fail, especially in the western division, to have struck the most unob-servant traveller from the metropolis to the coast, by way of Petworth, Midhurst, or Arundel.

As he travels southward from the Surrey hills, he sees stretched beneath him the wide and densely-wooded valley of the weald, a region of stiff clay and forests of oak, extending through the entire county. After traversing this district, where he would be more inclined to fancy himself

in the heart of Germany than within forty miles of London, he reaches a more elevated country, where highly-cultivated farms and an occasional elm tree denote the presence of a richer soil; and this is again succeeded by a wide tract of ferruginous sand, assuming the most striking forms of hill and valley, or spreading into open heaths. Nothing can exceed the picturesque beauty of certain portions of this district; eminences clothed with heather and gorse, and crowned with Scotch fir and holly, enclose valleys intersected by clear running brooks, whose course, here rapid and noisy, rushes over rocks and ridges of sandstone; there, taking a sudden turn, and stealing away in a deep and silent current, half undermines the overhanging banks, ungratefully exposing the gnarled roots of the old oak trees, that seem to stretch their branches in a protecting attitude over the stream; altogether strongly reminding one of those delicious bits of sylvan scenery which are scattered, with such a lavish hand, through the magic pages of Bewick.

Then come the Downs, the famous South Downs, which White of Selborne was wont to call "a magnificent chain of mountains," stretching across the county in a south-easterly direction, until they reach the sea in the neighbourhood of

Brighton, and form a precipitous coast from Kemp-town as far as Beachy Head.

But to the ornithologist, perhaps, the most interesting district is the flat, maritime tract which lies between the Downs and the sea, and extends from Brighton to the westward, as far as Chichester harbour, where it reaches its extreme breadth; and here, long winding creeks and estuaries, flanked by wooded promontories, and studded with swampy islands, sheltered from the storms to which the higher grounds are exposed, afford a welcome retreat to our feathered visitors during the inclement season of the year. The considerable peninsula which extends to the south-west of Bognor, terminating in the headland of Selsey Bill, is perhaps as little known to the world as any portion of Great Britain, lying, as it does, far to the south of the more frequented highways; but it comprises a great extent of sea-coast, dotted here and there with patches of brushwood and rough copses of stunted oak — tempting places of rest to our vernal migratory birds on their first arrival from the continent — and also includes within its limits a wide-spreading inlet of the sea, known as Pagham harbour, which might almost be termed a great salt lake; for the entrance to the haven is so narrow and shallow, and the channel within so

tortuous and uncertain, that none but small vessels of trifling tonnage can attempt a passage; and even of these the number and the arrivals are so few and far between, that they only arrest the attention of the observer as they cautiously thread their difficult way to deposit or receive a cargo of coals or corn at the hamlet of Siddlesham, which is seen rising, like a little Dutch village, from the flat shores in the distance.

Here, in the dead long summer days, when not a breath of air has been stirring, have I frequently remained for hours, stretched on the hot shingle, and gazed at the osprey as he soared aloft, or watched the little islands of mud at the turn of the tide, as each gradually rose from the receding waters, and was successively taken possession of by flocks of sandpipers and ring-dotterels, after various circumvolutions on the part of each detachment, now simultaneously presenting their snowy breasts to the sunshine, now suddenly turning their dusky backs, so that the dazzled eye lost sight of them from the contrast; while the prolonged cry of the titterel,* and the melancholy note of the peewit from the distant swamp, have

* The provincial name for the whimbrel. The word titterel frequently repeated by a female voice (in alt.) would nearly resemble the cry of this bird.

mingled with the scream of the tern and the taunting laugh of the gull.

Here have I watched the oyster-catcher, as he flew from point to point, and cautiously waded into the shallow water; and the patient heron, that pattern of a fisherman, as with retracted neck, and eyes fixed on vacancy, he has stood for hours without a single snap, motionless as a statue. Here, too, have I pursued the guillemot, or craftily endeavoured to cut off the retreat of the diver, by mooring my boat across the narrow passage through which alone he could return to the open sea without having recourse to his reluctant wings. Nor can I forget how often, during the Siberian winter of 1838, when "a whole gale," as the sailors have it, has been blowing from the north-east, I used to take up my position on the long and narrow ridge of shingle which separated this paradise from the raging waves without, and sheltered behind a hillock of sea-weed, with my long duck-gun and a trusty double, or half buried in a hole in the sand, I used to watch the legions of water-birds as they neared the shore, and dropped distrustfully among the breakers, at a distance from the desired haven, until, gaining confidence from accession of numbers, some of the bolder spirits—the pioneers of the army—would flap their wings, rise from the white waves, and make for the calm

water. Here they come! Already is the pied golden-eye pre-eminent among the advancing party; now the pochard, with his copper-coloured head and neck, may be distinguished from the darker scaup-duck; already the finger is on the trigger, when, perhaps, they suddenly verge to the right and left, far beyond the reach of my longest barrel, or, it may be, come swishing overhead, and leave a companion or two struggling on the shingle or floating on the shallow waters of the harbour.

But my recollections of this favoured spot have induced me to dwell too long on its attractions. I shall have occasion, however, to refer to it hereafter, as a locality where many rare birds have been obtained.

A long line of chalk cliffs extends to the eastward of Brighton as far as Beachy Head, which is the highest of all, and the country in the neighbourhood of this precipitous coast is hilly and treeless, and although partially cultivated, generally used as sheep-walks; but its character changes at the mouths of the rivers, and for many miles of their previous course, the rich pastures dotted with horned cattle, and flat arable tract adjoining, varied with occasional willow and alder trees, mark the course of the streams, as they wind

through the naked Downs on their way to the Channel.

After passing the bold promontory of Beachy Head, the loftiest precipice of which is said to be upwards of six hundred feet in height—a favourite breeding-station of guillemots and razor-bills—the cliffs rapidly diminish until we reach Eastbourne, where the South Downs appear to terminate, and a wide-spreading bed of shingle forms the flat, monotonous coast for many miles to the eastward, in the direction of Bexhill. Here extend the shores of Pevensey Bay, which were defended, during the war, by a long line of stunted round towers, that look like wind-mills deprived of all their upper works. On this wild beach the ring-dotterel, or stone-runner as it is frequently termed, deposits three eggs, which can scarcely be distinguished from the surrounding pebbles, and many species of terns haunt it in great numbers during the summer months. But amid this barren waste, like an oasis in a desert, a cluster of green, furze-covered hillocks suddenly appears, intersected by little fresh-water lakes, whose swampy banks, clothed with reeds and rushes, abound, during certain seasons, with many migratory birds of the grallatorial and natatorial divisions.

The principal rivers are the Arun, the Ouse, the Cuckmere, and the Adur, all flowing into the British Channel.

The Arun rises in the forest of St. Leonard, in western Sussex, crosses a considerable portion of the weald, and passes through the Downs between Bury Hill and Amberley, where, during the rainy season, it overflows the low meadows in that neighbourhood to the extent of many miles, so as to resemble a great lake, and ultimately debouches at Littlehampton.

The Ouse and the Cuckmere rise in the forest country, and enter the sea through the Downs to the eastward of Brighton. The former passes near Lewes, where it waters the flat, alluvial tract of Lewes levels, and so on to Newhaven, on the coast. The latter, still more to the eastward, passing by Arlington, Alfriston and Littleington, falls into the sea at Cuckmere haven, to the westward of Beachy Head.

The Adur, which also rises in St. Leonard's Forest, enters the sea at Shoreham, about six miles west of Brighton. Although the mouth of the harbour is narrow, and difficult of access to large vessels, except at full tide, yet the waters within expand laterally to a great extent, so as to form a tolerably commodious haven for steamers, colliers and fishing-boats, which the vicinity of

Brighton — to which this place serves as a port — attracts in considerable numbers ; indeed, the tide even penetrates so far as to flood many of those flat grounds, which, lying lower than the sea, run parallel with it for some miles between Shoreham and Hove, and are separated from it only by a high ridge of shingle. Various little pools of water are thus formed, which at certain seasons are haunted by many of the smaller species of wading and swimming birds, and the river above Shoreham, as far as Beeding levels, during the spring and autumnal months, will generally repay the patient observer, or the persevering gunner, who explores its muddy banks, and whose ardour is not to be chilled by an occasionally fruitless expedition in search of a *rara avis*.

LETTER II.

"Just then, in sign she favoured their intent,
 A long-winged heron great Minerva sent,
 This, tho' surrounding shades obscured their view,
 By the shrill clang and whistling wings they knew."

POPE'S HOMER.

Parham—Its Situation—A May Morning—Cross-country Ride—Wild Common—Valley of the Arun—Amberley Castle—Wild-Fowl Haunts in Olden Time—Winter Floods—Heronry invaded—Value of a Spy-glass—Heron's Nest—Its War-like Occupant—Another Nest—Old Bird feeding its Young—Rooks versus Herons—The Heron a calumniated Bird—Heron and Water Rat—Winter Quarters—Genealogy of the Parham Heronry.

I QUITE agree with you, that next to the falcons themselves, the heron—the noblest object of their pursuit—which in days of yore used to stand at the head of the British game-list, has the strongest claim to our protection.

While the ranks of this patrician bird, so long associated in our ideas with the old English hall and baronial castle, are gradually disappearing be-

fore the utilitarian improvements of the nineteenth century, it affords me no small pleasure to record that western Sussex can still boast of one of the most interesting heronries in the south of England. It is situated at Parham, the seat of the Honourable Robert Curzon: there is not a more beautifully wild and forest-like park in the county; there, indeed, everything seems imbued with the spirit of the olden time; from the ancient hall itself, with its huge grate, and walls hung with ancestral armour, to the venerable oak trees in the foreground, and the dark woods of Scotch and spruce fir which crown the heathery hills in the distance.

You may remember that in a former letter I alluded to the variety and beauty of the scenery in that belt of country, on the sandstone formation, which lies to the north of the Downs, between the latter and the weald, and extends from Rogate, on the borders of Hampshire, across the whole of west Sussex. Parham is situated in this tract, about eight miles, as the crow flies, to the south-east of Petworth, and the greater portion of the intervening country is on the same stratum.

I lately made an expedition to this heronry during the breeding-season, an account of which may perhaps amuse you. The weather for some months had been cold, wet, and unseasonable, but

suddenly changing on the 3rd of May, a bright, cloudless sky and a warm sun seemed to infuse new life into nature. The swallows, which ever since their arrival had only occasionally been seen, either singly or in small parties, skimming silently and hurriedly over the wet meadows, as if to make the most of their time during the brief intervals of sunshine, now suddenly appeared in vast numbers; the very air seemed peopled with them; the woods and groves rang with the joyful songs of the summer warblers: the larks mounted higher and sang louder than before; and everything, even to the barometer, seemed to exult in the glorious change. On such a morning I started on horseback from Petworth to Parham. Instead of pursuing the highway by Pulborough and Storrington, I turned south, and for two or three miles my path lay through one of those eccentric country lanes so well known to wayfarers in this part of England, and which are not less remarkable for their beauty than for their total disregard of all modern principles of road-making; here climbing the ridge of a hill, or descending its most abrupt slope, when either extreme might easily have been avoided; there suddenly turning off in an opposite direction to that which it had previously pursued, and again resuming its original course; and now eating its tunnel-like way between high,

sandy banks, where the old trees almost meet overhead, and exclude even the rays of the mid-day sun.

It was on emerging from one of these shady labyrinths that I came suddenly upon an extensive, undulating common, covered with heather and gorse, the latter of which, now in full bloom, seemed to blaze like a field of gold. Here, leaving the beaten track, I pursued my way for some miles over a wild country, pausing every now and then to admire the beauty of the scenery, or to observe the birds which frequented it. The stonechat, springing up, mounted to the summit of the nearest furze-bush, and with fluttering wings and jerking tail, as if to maintain his position on his thorny perch, saluted me with his harsh note as I passed by. The cuckoo, whose voice had sounded so subdued and distant a moment before, fluttered out of a larch clump close by, skimmed, hawk-like, across the path, and disappeared over the brow of the hill. In every little copse where the dwarf oak and blackthorn had grown together in wild luxuriance, the nightingale sang vigorously: but I listened in vain for the note of the grasshopper warbler; it had not yet arrived; but before many days its cricket-like chirp will be heard in these valleys; the fern owl,* too, will ere long

* Or night-jar, *Caprimulgus Europæus*.

appear in these his favourite haunts, and his monotonous "churr" be prolonged during the still, summer evenings.

After leaving this wild tract, and striking the high road between Pulborough and Arundel, the view that suddenly burst upon me was singularly beautiful. The great alluvial plain, watered by the Arun, lay spread beneath. Far to the right, on the opposite side of the river, were the old ruins of Amberley Castle, its dark, gray walls standing in bold relief from the smooth Downs, which, bounding this side of the picture as far as the eye could reach, seemed at last to mingle, cloud-like, with the distant horizon, and the hollow valleys that lay between them were filled with a soft, half transparent mist, the effect of which, with the summits of the hills bathed in sunshine, it would be impossible for the pen to describe, and Copley Fielding alone could depict with the pencil.

But how different was the appearance of the intervening plain "sixty years since." Those wide meadows, clothed with long, rank grass, where herds of black cattle now lazily chew the cud, were then covered with dense woods, where the adventurous sportsman delighted to contend with the tangled brushwood, and wade, knee-deep, through the marshy jungles that extended for

miles on either side of the river, affording shelter and sustenance at all seasons to various tribes of water-fowl which haunted its recesses. Then might the booming of the bittern have been heard during the summer nights; and many a rare species whose occurrence, like the visits of an angel, can now be recorded only as "few and far between," was either a constant resident or a regular visitor to these congenial swamps. But alas! the wild character of such scenery, with all its associations, is gradually disappearing before the strides of civilization, while the march of "agricultural improvement" steadily progresses: the advanced guard, indeed, with the axe and the plough, long since performed its part, and gave the first notice to quit to the feathered inhabitants of the marshes, and the huge army of reserve, with its mills and steam engines, and red legions of draining-tiles, will slowly but surely complete the work of extermination. Nevertheless, during the winter months the floods still exercise undisputed sway, and laugh to scorn the efforts of man to curb their power; for the entire plain, as far as the eye can reach, becomes one vast sheet of water, frequented, during severe storms, by wild-fowl and sea-birds, while the dark, pine-crowned hills of Parham arise like a beautiful island in the distance.

After crossing the river by Greatham bridge, and passing rapidly over the flat, dyke-intersected plain that lay beyond, where the black-headed bunting sat perched on the wooden rails, and the sedge warbler scolded inveterately among the reeds on either side of the road, I reached the higher grounds, when, following a dry, sandy track across a common, and afterwards skirting a plantation of larch trees, whose graceful branches hung over the path fresh in all the bright verdure of early May, I at last arrived at Parham, traversed its beautiful park, dismounted from my horse, and soon afterwards found myself creeping cautiously through the thick wood of Scotch and spruce fir in which the heronry is situated, my object being to approach so near as, if possible, to obtain a good view of the birds between the intervals of the trees, before they had become conscious of my presence. As I advanced, I could hear the indescribable half croaking, half hissing sound uttered by the young birds when in the act of being fed by the old ones, but a treacherous stick snapping beneath my foot, all was changed in an instant, the unfledged inhabitants of the nests became suddenly mute, and every adult member of the colony was at once on the wing. Some ascended into the air to a considerable height, screaming loudly, others flapped heavily

round the summits of the trees, as if unwilling to leave the place until they had discovered the cause of the general alarm; while a few of the less timid even resumed their position on the high boughs. I now raised my glass, and had a capital view of one splendid fellow as he stood, like a guardian angel, over his nest, upright as a falcon, his long, graceful neck extended to the utmost, and his keen glance directed all around, as if it could pierce even through the gloom of the dark wood.

I need not tell you what a valuable assistant a good spy-glass proves to the practical ornithologist; you have often heard me speak of its advantages in former times; it is indeed my constant companion; for although blest with as keen sight as most of my fellow creatures, and although so well acquainted with birds as generally to be able to distinguish a species by the character of its flight at any reasonable distance, yet in investigating the habits of many of the less accessible tribes during the breeding-season, in observing the birds which haunt the summits of the Downs, or the great congregations of sandpipers and flocks of wading-birds on the coast, and satisfactorily making out, not only the various species, but even different gradations of plumage in each, I am deeply indebted to my pocket Dollond; nor

shall I be persuaded to dispense with its services until I become endowed with such a telescopic vision as is attributed to the bushmen of southern Africa. It is true that I had but little scope for its use at this moment—the nests and their occupants being situated among the thick branches of the evergreen firs—but by its aid I could perceive that the heron which had attracted my attention was a very old bird, as indicated by the long crest and the pure white plumage of the breast and neck, with which the rows of jet black spots on the sides of the latter contrasted beautifully.

Being anxious to examine the young birds, I selected one of the spruce firs, on the summit of which was a heron's nest, and which appeared to command a view over many other lower trees immediately adjoining, which were similarly occupied. The only danger—if such it could be called—was in preserving a firm footing on the brittle branches near the nest, nor can I say that I experienced a pleasing sensation when the tall and narrow stem, already well loaded with the enormous, wide-spreading fabric at the top, began to sway to and fro from my additional weight, as I endeavoured, by walking out on one of the boughs immediately underneath, to outflank it so far as to enable me to reach the edge, and while supporting myself with one hand, partially explore its

contents with the other. Having, however, succeeded in this, I soon felt the decomposing and flattened bodies of two young herons, and above them the warm plumage of a living bird, which did not appear to avoid the touch of my hand. An effort with both arms now brought my face to a level with the nest, but I had scarcely time to perceive that it contained a healthy and perfectly fledged young bird, sitting complacently on the bodies of his defunct brethren, before he darted violently at my eyes, although he had previously evinced no displeasure at the introduction of my hand, and I was only able to protect them by bobbing my head suddenly, and receiving the attack in a less vulnerable quarter. As if roused by the sudden exertion, he then scrambled out of the nest to the extremity of an adjoining bough, from whence—being unable to follow him—I endeavoured to shake him off, but for a long time in vain. The obstinacy with which he maintained his hold was extraordinary, and even after losing his equilibrium, and hanging, head downwards, for a few moments, just as I fancied he was about to drop, he suddenly clutched the branch more firmly than ever, and writhing his elastic neck upwards, he seized a twig with his beak, which he held with all the tenacity of a parrot. I therefore continued to shake the bough, and after persevering in this

operation for some minutes, he gradually relaxed his hold, and half fluttering, half tumbling through the horizontal branches of the tree beneath me, at last reached the ground in safety.

I had now leisure to examine the nest, the lower and external portions of which were composed of sticks from the larch and fir, the materials becoming finer towards the interior, which was lined throughout with very thin birch twigs, closely matted together. It was much wider than that of the rook, and shallower in proportion, being, as nearly as I could guess, about four feet in diameter, and some of those in the neighbouring trees, when viewed from beneath, seemed even larger than this.

The two dead birds appeared to have perished about a week before, probably owing to the unusual severity of the weather during the past month. Their decomposing bodies did not seem to have incommoded the old birds, as they might easily have removed the annoyance, if inclined to do so, by throwing them out of the shallow nest, in the interior of which I found nothing else, except the back-bones of two or three fish, which might have originally weighed half a pound each.

My operations having for the present disturbed the elder members of the heronry, who seemed unwilling to return to the trees while I remained

there, I left the place for a couple of hours, and then cautiously retracing my steps, fastened my horse to a shrub at some distance, and taking off my shooting coat, from one of the capacious pockets of which the head and neck of the living heron* protruded, I slung my spy-glass over my

* This bird reached home in safety, none the worse for his rough ride and uncomfortable saddle. During the first three months his diet consisted exclusively of fish ; indeed, he showed a repugnance to any other kind of food. He is in excellent health, and possesses as much liberty as a partially clipped wing will permit him to enjoy. Although capable of taking short flights, he evinces no inclination to wander beyond the precincts of a large stable-yard, nor any uneasiness at the approach of dogs or strangers.

He lives on familiar terms with three tame ravens, who occasionally pass through the gate, or perch on the roofs of the outbuildings. He is now even more omnivorous than his sable friends, but condescends to partake of their meals, devouring raw and cooked meat, bread, boiled potatoes, and the offal of hares and rabbits, with indiscriminate voracity.

When his appetite happens to be unusually fastidious, he stations himself on the edge of a small tank, in which a constant supply of live fish used formerly to be kept for his especial use, and throws many a wistful glance on the now vacant water ; but his favourite position is in a corner of the yard, cheek-by-jowl with a large watch-dog. Here, with his head drawn back

neck, and as silently as possible ascended a Scotch fir which commanded from its upper branches a good view of a large nest in a neighbouring tree. The evergreen boughs, moreover, were so well clothed with leaves that I found less difficulty than I had expected in concealing myself, but notwithstanding all my care the old birds had taken the alarm when I began to climb, and I had to wait a long time before either of them returned. I had, however, a good opportunity of examining with my glass the grotesque inhabitants of the nest: they were three in number, appeared to be not more than a week or ten days old, and were partly clothed with a hairy down, resembling hemp or flax in colour and appearance; their heavy heads, crowned with tufts of this, and raised occasionally as they opened their enormous mouths in expectation of food, and then suddenly dropped again; their great staring eyes, writhing necks, and naked bodies; altogether con-

between his shoulders, and muffled up in a collar of loose feathers, he passes the greater portion of his time, apparently lost in an absent fit; but as his dinner-hour approaches, he gradually rouses himself, his long neck is unfolded, his plumage becomes compact and smooth, he screams with delight, and stalks about the yard.

tributed to render their appearance irresistibly ludicrous: but their excitement seemed to have reached its utmost when one of the old birds, which had flapped round the nest for some time, at last prepared to alight, gradually allowing his outstretched legs to fall from the horizontal to the perpendicular, and working his wings with increased violence and rapidity until he found a firm footing on the margin of the nest, when, opening his beak, he immediately disgorged several small eels, which were greedily devoured by the three young birds. The eels appeared to be very small; but I had ere long an opportunity of observing that even when a fish is of a tolerable size, the heron contrives to conceal it within the elastic pouch to which, in so many birds, the dilatable skin of the throat can be readily converted; for many minutes had not elapsed before I saw an old heron alight on a more distant tree, and opening his mouth, drop a fish, which appeared to be above half a pound weight, into the bottom of his nest. I had, it is true, only a passing glimpse of it as it fell, and therefore at the moment could make only a rough guess at its weight and species, but it appeared to be a bream, or large roach, and of such a shape and size as I should scarcely have supposed to have been stowed away within that graceful neck, if I had not been aware,

from former observations on the habits of cormorants and divers, how great are the expansive properties of the gullet in all piscivorous birds. After dropping it on the floor of the nest he commenced, by repeated blows of his beak, to lacerate and tear the flesh from the bones, and seemed to accomplish his task in an incredibly short space of time by means of the admirable tool with which Nature had furnished him, performing at once the double duties of pickaxe and pincers; then followed the feeding of the young birds, and so economical a housekeeper and skilful carver did he prove, that when I had afterwards the curiosity to ascend to his nest, I found, as the remains of the repast, little else than the back-bone of a fish which might have weighed nearly a pound, with only a few ragged bits of flesh adhering to it; even the head had been devoured.

Having secured this remnant, and taken a 'last lingering look' at the inhabitants of the nest, who were hardly fledged, and allowed me to handle them without resistance, I thought I had caused sufficient disturbance among my feathered friends for one day, and being well aware of the capricious nature of this species, entire establishments of which have been known to desert their ancestral abodes, disgusted at the felling of a single tree; and knowing with what anxious care they

are regarded by their benevolent owner; I left the heronry, and ascending the rising ground a few hundred yards off, but still in the same wood, I came to the rookery: here the herons had originally taken up their position, but were expelled after a few years by the rooks.*

By the way, I forgot to mention, that while perched at the top of the Scotch fir, I witnessed a curious chace, for combat it could not be called, between a rook and a heron. The latter, returning, I presume, from a foraging expedition among the brooks in the neighbourhood of Pulborough, was obliged either to fly directly over the rookery, or take a circuitous route to avoid it. In this dilemma it would appear that he made up his mind to choose the less prudent, though nobler alternative, but he had hardly appeared above the tops of the trees before an old black warrior attacked him furiously, following him up beyond the precincts of the heronry, and buffeting him vigor-

* It would appear that such contests are not invariably attended with similar results. Bewick quotes an instance in which hostilities were carried on during two successive seasons, and after many of the rooks and some of the herons had lost their lives, the latter remained in possession of the disputed trees.

Perhaps in these struggles numerical superiority may decide the victory.

ously, while the poor heron, far from making any resistance, screamed with terror, and only occasionally arrested his flight to throw himself into an attitude of apparent pain and distress. Perhaps you will regret that I have recorded this little incident, as it may induce you to form rather a low estimate of the moral qualities of a bird whose physical organization would certainly appear calculated to enable it to resist such attacks effectually.

I have long felt satisfied that the injury which herons commit on fish-ponds is far less than is generally imagined; indeed, the depredations of all birds which can by any possibility be supposed to interfere with the comforts or luxuries of man, from the lordly eagle to the republican sparrow, are greatly exaggerated, and a short-sighted proscription is the result. Nay, those very operations which should entitle some species to his especial protection, are frequently, either from gross ignorance, or a wilful distortion of reasoning, converted into a capital charge against them, which entails unmerited persecution and the gradual diminution of the race. Even the heron is not such an unmitigated poacher as many persons are inclined to believe; I have had good opportunities of observing him here, and still better in Ireland, and I have rarely known him take a fish

of greater weight than one pound. His structure adapts him for wading to a certain depth into the shallow waters on the borders of lakes, ponds, and ditches, while his spider-like patience in watching for his prey, and his cat-like activity in securing it, enable him to thin the shoals of gudgeons, eels, roach, and minnows, that pass along the margins, and occasionally venture within his reach: but the deep waters beyond are an unknown region to him; there the carp and tench may swim in security, as far as he is concerned, and the trout and perch pursue the fly, or spring into the air, within a tantalizing distance of his hungry beak: so long as they do not venture within the range of that unerring weapon they are safe: but how will it fare with that water rat, which, returning to its subterranean habitation from a visit to yonder meadow, is now about to cross the brook,—

“*ripæ ulterioris amore?*”

How fearlessly it commits itself to the stream; so unconscious is the little animal of danger that it does not attempt to dive or alter its course, but with snout projecting from the surface, and tail extended, it swims steadily across to where the motionless bird awaits its arrival. The slightest

movement would prematurely reveal the presence of the latter and disappoint him of his prey ; but what forbearance does he not exhibit ! No hasty step is taken in advance to anticipate its arrival, that snake-like neck is still coiled up, and not a muscle betrays a consciousness of the victim's approach. Onward it comes, Ha ! it disappears ; for a passing breeze has ruffled the plumage of its enemy ; now then, the danger is over, and you feel sure that it has successfully eluded the vigilance of the feathered tiger, and reached its hole in safety, but a sudden splash makes you start, and you are convinced of your mistake when you see the little quadruped writhing in the mandibles of the bird as he flies away to gorge it at his leisure.

The heron is also partial to frogs and snakes, which he destroys in considerable numbers where they abound, but I repeat that I have very rarely known him capture a fish of a pound weight. His stock in trade consists of small fry, with the occasional exception of a stout roach or a freshwater bream, a bony, worthless species, which delights in basking among the shallows near the margins of large ponds ; and I firmly believe that far greater devastation is committed among the finny inhabitants of preserved waters by one leviathan of a pike—who is, moreover, an uncompro-

mising cannibal—than by the united exertions of all the members of any one heronry in the world.

The herons at Parham assemble early in February, and then set about repairing their nests, but the trees are never entirely deserted during the winter months; a few birds, probably some of the more backward of the preceding season, roosting among their boughs every night. They commence laying early in March, and the greater part of the young birds are hatched during the early days of April. About the end of May they may be seen to flap out of their nests to the adjacent boughs, and bask for hours in the warm sunshine; but although now comparatively quiet during the day, they become clamorous for food as the evening approaches, and indeed for a long time appear to be more difficult to wean, and less able to shift for themselves, than most birds of a similar age. They may be observed, as late as August, still on the trees, screaming for food, and occasionally fed by their parents, who forage for them assiduously; indeed, these exertions, so far from being relaxed after the setting of the sun, appear to be redoubled during the night; for I have frequently disturbed herons when riding by moonlight among the low grounds near the river, where I have seldom seen them during the day, and several cottagers in the neighbour-

hood of Parham have assured me that their shrill cry may be heard at all hours of the night, during the summer season, as they fly to and fro overhead, on their passage between the heronry and the open country.

The history or genealogy of the progenitors of this colony is remarkable. They were originally brought from Coity Castle, in Wales, by Lord Leicester's steward, in James the First's time, to Penshurst, in Kent, the seat of Lord De Lisle, where their descendants continued for more than two hundred years; from thence they migrated to Michelgrove, about seventy miles from Penshurst, and eight from Parham; here they remained for nearly twenty years, until the proprietor of the estate disposed of it to the late Duke of Norfolk, who, having purchased it, not as a residence, but with the view of increasing the local property in the neighbourhood of Arundel, pulled down the house, and felled one or two of the trees on which the herons had constructed their nests. The migration commenced immediately, but appears to have been gradual; for three seasons elapsed before all the members of the heronry had found their way over the Downs to their new quarters in the fir-woods of Parham. This occurred about seventeen years ago.

The number of the nests now appears to be

rather increasing than diminishing, although an unusually severe winter never fails to thin the ranks of their occupants. The ponds, brooks and ditches, which they have been in the habit of frequenting, being now frozen up, the poor birds are driven to the sea-coast and the salt-marshes at the mouths of the rivers, beyond the Downs: there the murderous fowling-piece stops the career of many a straggler in his winter quarters, and the ensuing spring finds several nests untenanted; but a favourable season soon sets all to rights; the gaps are filled up; and the kind-hearted proprietor of Parham, in return for his care and protection, can now boast of possessing one of the finest establishments in the kingdom of this magnificent and interesting species.

LETTER III.

————— “ Nam jam pendebat in auras,
Et modo factus erat fulvis Haliaetus alis.”

OID'S METAMORPHOSES.

Sea Eagle often mistaken for the Golden Eagle—Distinctive Characters — Erroneous Nomenclature — Markwick probably mistaken — Common reports to be received with caution—Various instances of the Sea Eagle in Sussex — A sharp Look-out—Catching a Tartar.

I THINK it is Colonel Hawker who complains that every canine brute as big as a jack-ass and as hairy as a bear is denominated a fine Newfoundland dog. In the justice of this remark every one will be disposed to acquiesce; and the ornithologist may observe that as great a liberty has frequently been taken with the golden eagle,* for there is not a wider difference between the real Labrador animal and the huge mongrels stigmatized by the “prince of sportsmen,” than between the royal tyrant of the Scottish hills and

* *Aquila chrysaetos*.

the bird which has so frequently been made to usurp his title in the south of England. The fact is, that whenever an immature sea eagle,* in his juvenile dress of shabby brown—ere his cinereous coat and white tail pronounce him to have arrived at years of discretion—has wandered from his native haunts, in the vain hope of getting a living on our shores, and has fallen an easy victim to the watchful shepherd or the wily gamekeeper, a paragraph detailing the occurrence forthwith goes the round of the local papers, and the bird is gravely pronounced to be “a magnificent specimen of the golden eagle.”

Strange as this may seem to those who are now well acquainted, not only with the general characters of the two species, but with their anatomical distinctions, yet to the uninitiated the difference does not appear so striking as might be imagined. I remember on one occasion visiting a museum with a friend—a superficial observer—in whose eyes the young sea eagle seemed to bear a greater affinity to the mature golden than to the adults of its own species; the dark beak and the prevalent brown colour of the plumage in this bird at once attracting his attention, while the unfeathered tarsi and scutellated toes escaped his notice. However well and thoroughly understood

* *Haliaëetus albicilla*.

these characters have since become, we must not forget that even our own Bewick, so accurate in most respects, assigned specific rank to the young of both the birds in question, erroneously distinguishing them from their respective adults by the names of the brown or sea eagle, and the ring-tailed eagle; but truly his admirable and life-like figures of the birds themselves may well induce us not only to forgive, but even to rejoice in the scientific error.

Markwick, whose 'Catalogue of the Birds of Sussex' appeared in the Linnean Transactions, A.D. 1795, says, in reference to the golden eagle, "Several years ago I saw a bird of this species which was shot in this neighbourhood;" but he makes no allusion whatever to the cinereous or sea eagle, and indeed the passage which I have quoted above comprehends all his notice of the rarer species. Now, I have taken considerable pains to ascertain, if possible, one well-authenticated instance of the death or capture of this bird in Sussex: I have on more than one occasion journeyed to a distant part of the county, tempted by some high-sounding paragraph or plausible communication, to inspect a veritable *Aquila chrysaëtos*, but in every instance I have been doomed to disappointment, the so-called "golden eagle" invariably turning out to be nothing more

than a young bird of the common species. Taking, therefore, into consideration the imperfect state of the science in Markwick's time, and the vague and incorrect ideas on the subject of nomenclature generally, which prevailed, indeed, to a much later period; bearing in mind also that the golden eagle—the eagle to which he alludes—has apparently never since been met with in the wild state in Sussex, while the white-tailed—which he does not even mention—has occurred in several instances; and remembering that Bexhill, where his eagle was said to have been killed, is a village on the coast between Pevensey Bay and Hastings, and therefore a more probable locality for the sea eagle; I think we may fairly conclude that Markwick's bird was in reality the *Haliaeetus albicilla*.

It is not without a considerable sense of disappointment that I feel myself compelled conscientiously to relinquish all claim to the golden eagle as a Sussex bird, but although I readily plead guilty to a strong desire to open the door to as many of our feathered visitors as can, from my own personal knowledge, or on unquestionable authority, be admitted to a place in our local fauna, yet I am well aware of the extreme caution with which all oral information respecting birds or their habits should be received: the numerous

errors and exaggerations which have crept into some of our earlier histories are frequently attributable to a want of care in this respect, or too great a share of credulity on the part of their authors; the verification of facts should be a grand object with all who labour in the wide field of Natural History; and the observer who confines himself even to one district, however limited, will find ample materials for investigation and record, without having occasion to press into his service either apocryphal anecdotes or doubtful species.

A sea eagle in immature plumage was shot some years ago by the proprietor of the Dolphin Inn, at Shoreham. It was observed preying on some dead fish which had been thrown up by the waves on the beach, and being gorged, was killed without difficulty. In January, 1844, a sea eagle was shot near Windmill Hill, in the parish of Wartling, and during the winter of 1841 a bird of the same species was observed in the neighbourhood of Rottingdean for nearly a month; he was unusually wary, and generally haunted the banks of a small sheep-pond on the high Downs, where he could command a good view of an approaching enemy; and when the tide was out he would appear on the shore in search of dead fish, always keeping away from the cliffs, and taking prompt alarm at an approaching boat, in which, perhaps,

some ardent gunner might lie concealed. Notwithstanding all his vigilance, however, one day, when he was dozing on the borders of the elevated pool above mentioned, a lark-shooter succeeded in approaching within a tolerable distance, but being only prepared for "small fry" the discharge of his gun was not sufficient to disable the bird, which succeeded in making his escape.

A fine example of the same species, but also in imperfect plumage, was shot about four years ago by a man in the employment of the superintendent of Pevensey Levels. Being only winged, the bird contrived to scramble into a corner formed by two fences or low walls, where he took up his position, and turning his face to his foes, like *Siccus Dentatus*, he defended himself so resolutely that he kept his persecutors at bay for a length of time, one and all declining to come to closer quarters with such a formidable antagonist. Having tried in vain to turn his flank, an ally in the form of a sheep-dog was called in, who commenced his attack in the most courageous manner, little anticipating what a warm reception he was about to meet with; but he soon found that he had "caught a Tartar;" for he was nearly killed by the eagle before his rescue was effected. His attack, however, caused a diversion by withdrawing the attention of the bird from his biped tor-

mentors, and just as the talons of each foot were respectively lodged in the ribs and throat of the howling cur, and when another moment would have seen one of his eyes cleverly scooped out, a blow on the back of the head laid the poor eagle

“stretched upon the plain,
No more through rolling clouds to soar again.”

NOTE. — While these pages are passing through the press, I have received information from Sir Charles Taylor that a large eagle, lately observed in his neighbourhood, had been subsequently trapped in one of the great woods on the Cowdray estate. Being naturally anxious to examine, or perchance obtain a specimen of an eagle found so near me, I was just preparing to start in quest of it, when Lord Egmont kindly anticipated my wishes by sending it to me. It proved to be a male cinereous or sea eagle, in immature, but uninjured plumage. I have ascertained that the last chapter in his biography was as follows:—The bird had for three weeks frequented the wooded district in that picturesque portion of the weald which lies between Hollycombe and Henley Hill, about twenty miles from the coast, and was evidently hitherto indebted for his escape rather to the impracticable nature of his haunts than to any cunning or vigilance of his own. He had been frequently seen near some old pollard oak trees, among which, it was afterwards ascertained, he had roosted. Having, at length, imprudently ventured to make a foray

upon a neighbouring farm-yard, and carried off a goose, matters began to assume a serious aspect. A council of war was called: the farmer, the game-keeper, and the rat-catcher met in conclave; an alliance offensive and defensive was formed; the eagle was denounced; and all measures, whether of force or stratagem, were declared lawful, to destroy such a marauder: the first subscribed a pigeon, the second a trap, and the third a rat. Operations were commenced by laying down the pigeon near the supposed retreat of the robber, as if to test his gullibility: this was immediately carried off: the trap was then set on the same spot, baited with the rat, and by means of this ignoble lure was the poor eagle deluded and captured.

LETTER IV.

—————“I think he'll be to Rome
As is the osprey to the fish, who takes it
By sovereignty of nature.”

CORIOLANUS.

The Osprey miscalled Sea Eagle—An Outlaw—Hue and Cry—Unholy Alliance—Occurrences of the Osprey in Sussex—The Mullet Hawk—Rival Fishers—The Osprey at Pagham—Anecdote—The Biter bit.

WHILE the term “golden” is often applied erroneously to the cinereous or sea eagle, the osprey or fishing-hawk (*Pandion haliaëtus*) is as frequently honoured with the title of the latter bird, at least in this part of England, where, although far from abundant, it is of much more frequent occurrence than its gigantic namesake.*

The old oak trees in the neighbourhood of some of the well-stocked ponds in the district of the

* Markwick does not allude to the osprey, either by that name or under any synonyme, in his ‘Catalogue of Sussex Birds.’

weald would appear to offer many spots favourable to its nidification, and were it not for the unceasing warfare carried on against all the tribe, I might have had the pleasure of recording here at least one instance of its sojourning with us during the breeding-season : but no sooner does an osprey make his appearance in such a situation, soaring aloft in graceful and repeated circles, dashing into the deep, or suddenly arresting his downward career, and hovering over the surface, than he beomes the object of general persecution ; the proprietor of pike is alarmed, issues his merciless edict for his death or expulsion, guns and traps are put into immediate requisition, and the keeper, in his indiscriminating hatred of everything in the shape of a hawk, vies with the guardian of the waters in his efforts to destroy the beautiful stranger.

During the months of May and June, 1843, an osprey was observed to haunt the large ponds near Bolney. After securing a fish he used to retire to an old tree on the more exposed bank to devour it, and about the close of evening was in the habit of flying off toward the north-west, sometimes carrying away a prize in his talons if his sport had been unusually successful, as if he dreaded being disturbed at his repast during the dangerous hour of twilight. Having been shot at

several times without effect, his visits to these ponds became gradually less frequent, but the surrounding covers being unpreserved, and the bird itself too wary to suffer a near approach, he escaped the fate of many of his congeners, and even re-appeared with a companion early in the following September, to whom he seemed to have imparted his salutary dread of man — his mortal enemy — for during the short time they remained there it was impossible to approach within gunshot of either of them.

Adult specimens have occurred in Sussex during the winter and spring months, those which have been obtained in the summer and early part of the autumn being generally immature birds, as indicated by their speckled upper plumage. A very fine old female was killed lately at Pond Lye, near Cuckfield Place. I had an opportunity of examining this bird immediately afterwards, when it was sent to Brighton to be preserved: the stomach contained a trout, which had partially undergone the process of digestion.

Specimens have also been shot on the Adur at Shoreham, and at Beeding: it has also occurred near Chichester; and farther eastward, near Brighton, Pevensey Levels and Rye harbour.

The river Arun flows through an extensive tract of level meadow-land reclaimed from the original





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THE OSPREY. RUINS OF AMBERLEY CASTLE IN THE DISTANCE.

swamp, just before it passes through a wide gap in the Downs, Bury Hill being on the right and the ruins of Amberley Castle on the left. A little farther to the south it waters the ancient and picturesque town of Arundel, celebrated even in old Isaac Walton's time for its grey mullets.* This fish would appear to have peculiar attractions for the osprey, which, indeed, in the adjoining county of Hampshire is called the mullet-hawk,† a partiality which will account for the more frequent occurrence of the bird during the mullet season than at other times of the year, and in localities where that species of fish more particularly abounds. I have an immature specimen which was shot during the summer of 1836, near Amberley Castle, by a man who rented the fishing on that part of the river; he had noticed it for several days, and from an observation of its habits had come to the conclusion that it was a very formidable rival in his own trade; he said that it had destroyed a great quantity of mullets.

About the same time another was killed at Siddleshams, on the borders of Pagham harbour,

* "And just so does Sussex boast of several fish; as namely, a Selsey cockle, a Chichester lobster, an Arundel mullet, and an Amberley trout."

THE COMPLETE ANGLER.

† Yarrell's 'British Birds,' vol. i. p. 23.

which, from a former letter you will recognize as a favourite haunt of this bird. During the summer and autumn of 1839 I enjoyed many opportunities of observing an osprey, and of contemplating the unchecked display of his powers on this fine sheet of water. There were no wild-fowl shooters at that time of the year to interfere with him, and I need hardly say that he experienced no interruption from me.

He seldom ventured far out to sea, but at low tide, when the waters had receded from the beach, he would make an expedition to the south, surveying the shores from a great height, and occasionally dashing down to seize a fish just beyond the white surf which marked the outline of the coast as far as the eye could reach.

The oft-told, but frequently doubted story* of an eagle, *i. e.*, an osprey, having been carried under water and drowned by a large pike, into whose broad shoulders the bird had fixed his talons, derives some credibility from the circumstances attending the capture of an osprey a few years since near Rottingdean, a little village about three miles from Kemp-town. The facts were as follows: A shepherd's boy, while tending his flock near the cliffs, observed an osprey rising

* Lloyd's 'Northern Field Sports.'

with difficulty from the sea, and bearing in his claws a large fish, with which he alighted near the edge of the precipice. Running up hastily to the spot, and perceiving the distress of the bird, who appeared equally incapable of carrying off his prize, or of disengaging himself from it, but looked, as the boy expressed it, "as if he was stuck in a trap," he disabled and subsequently despatched him with his crook. I saw this specimen after it had been set up by a clever taxidermist,* who, to commemorate the particulars of its capture, had mounted it on a large fish, with the claws firmly imbedded in its scaly back.

What a singular fate for any predacious animal to meet with when obeying the dictates of what has been called "an unerring instinct!" Accidents of this kind are doubtless of rare occurrence, and may be placed in the same category

* Mr. Swaysland, of Brighton, who has done much within the last few years to elevate the character of his art. From a correct knowledge of the proportions and attitudes of birds—the result of out-door observation—he succeeds in restoring to each its peculiar form and expression. Indeed, his specimens exhibit a life-like spirit which I have never seen surpassed, and contrast advantageously with those unhappy families of woodpeckers and kingfishers which one sometimes sees trying to stand in impossible attitudes within the shop-window of the ordinary bird-stuffer.

with the sudden death of a civic dignitary who had incautiously swallowed a turbot-bone at a Lord Mayor's dinner. Seldom, indeed, does the bird seize a fish which he is unable to carry off with ease, and as rarely would a bone of such deadly dimensions escape the aldermanic eye; but these things have occurred nevertheless, and to any one who has examined the foot of a recently killed osprey the matter will appear quite possible, as far as the bird is concerned: the extreme length and sharpness of the claws, and their almost semicircular curvature—exceeding that of any of our raptorial birds—added to the versatility of the outer toe, which enables it to clutch its prey with greater firmness, must at the same time render the sudden extrication of its talons proportionably difficult, should an urgent necessity for such an attempt occur; but that it is not voluntarily practised on ordinary occasions would appear from the observation of Mr. Yarrell, who, in reference to the habits of a living specimen in the gardens of the Zoological Society, says that after “digging in the claws it held the fish most firmly by four opposite points, not relaxing its hold or altering the position of the toes, but picking out the portions of flesh between them with great ease and dexterity.”*

* Nevertheless, the fact that this bird has generally the

LETTER V.

"Sufferance is the badge of all our tribe."

MERCHANT OF VENICE.

The Kestrel or Windhover—Its unmerited Persecution—
Destructive to four-footed Vermin, Reptiles, &c.—
Seizure and Execution of a Rat—Serpent-killer—Mr.
Waterton on the Migration of the Windhover—Pro-
blem and attempted Solution—Distribution of the
Kestrel—Periodical appearance "*en potence*" in Au-
tumn—Probable Cause—Commissariat Department
—Reappearance of considerable numbers in Spring.

OF the various birds which figure undeservedly
on the black list of the gamekeeper, there is none

power of relaxing his hold of his slippery prey will be familiar to all who have read Wilson's graphic account of his habits in America. There the white-headed or bald eagle, as partial to fish as the poor osprey, but too lazy to forage for himself, sits patiently on the bough of some gigantic tree commanding a view of the ocean, and when the osprey rises from the surface with a prize, he instantly gives chase, and frequently compels him to relinquish it.

for which the benevolent author of the Essays has pleaded more eloquently than the poor kestrel or windhover (*Falco tinnunculus*), and, I may add, none more deserving of his powerful intercession. Of all our *Raptores* it is—perhaps with the exception of the barn owl—the most efficient destroyer of mice, and as a general check upon the increase of noxious small quadrupeds and reptiles, its exertions far surpass those of any other British bird of prey. Its favourite food appears to be the long-tailed field-mouse (*Mus sylvaticus*), whose depredations on the bark and upper roots of young timber and fruit trees are notorious; it is also known to consume vast quantities of beetles, which in the larva state are injurious to vegetation; and I have myself seen a female of this species seize, carry off, and ultimately kill a full-grown rat. I was walking at the time on a high road near Petworth, which was flanked on either side by a deep ditch; about a hundred yards in front lay a large heap of stones, and in the immediate neighbourhood were several newly gleaned stubble fields: over one of these hovered a female kestrel; I was admiring her graceful evolutions, and the apparent ease with which, in the face of a strong westerly breeze, she remained poised as it were in the air, when she suddenly darted over the hedge which separated the field from the road,

and seized a rat which had evidently just issued from the heap of stones, and was running at the top of its speed to the opposite ditch. So rapid was the swoop, that it had not accomplished half the distance before the bird was on its back: fixing the talons of both feet across its shoulders and loins, she arose, and although evidently retarded by her writhing and squeaking burden, cleared the hedge, fluttered across a field, and alighted on a mound of earth at the farther side. By making a slight *détour*, and masking my advance with an intervening oak tree, I contrived to approach within thirty yards, and could perceive that she was endeavouring to destroy the life of her victim by severing with her beak the spine about the middle of the back. Once, as if to try how far her exertions in this respect had been attended with success, she relaxed her hold of the rat, and hovered over it in the air for a few seconds, while the latter, whose vocal powers were now quite extinguished, and all its hinder parts paralyzed, attempted to crawl, with the assistance of its fore legs, down the sloping edge of the mound, when the kestrel, as if satisfied that it could give her but little more trouble, or perhaps ashamed of prolonging a cruel experiment, more worthy of a cat than a falcon, again seized it with both feet, and resuming her position on the summit of the

mound began to devour it, commencing at the head or back of the neck. Having suddenly made my appearance at this moment, she flew off, carrying the now dead and mutilated rat in one foot with comparative ease, and as I looked after her, I could see her continuing her flight across a wide meadow, until she topped a low hedge at the opposite side, near a large wood, in the recesses of which she could continue her repast without further interruption.

You will perhaps think that I have described this little incident with unnecessary minuteness: I had two reasons for recording these apparently trifling details: it was the first instance I had met with of any raptorial bird relaxing its grasp of the quarry, and even quitting it, before life was extinct; and it serves to prove that, besides being an efficient destroyer of mice, the kestrel is also a check upon that most odious of all four-footed vermin, the rat.

Ornithologists are aware that the slow-worm (*Anguis fragilis*) is constantly devoured by this bird, but it has even stronger claims to the title of "serpent-killer." A specimen was shot in this neighbourhood in the act of killing a large adder: the bird and reptile are both in my collection.

The perusal of Mr. Waterton's interesting remarks on the windhover in Yorkshire has induced

me to pay increased attention to its migration in Sussex. It occurred to me that a careful observation of its habits and distribution in different parts of this southern county, during the various seasons of the year, might tend perhaps—in connexion with what he had written on the subject—to throw some additional light on this portion of its history.

Mr. Waterton says, “Perhaps it is not generally known that the windhover is a migratory bird; but whether the greater part of these hawks leave England in the autumn, or merely retire from their breeding place to some other part of our country more congenial to their habits, is a problem which remains yet to be solved. For my own part, I am of opinion that a very large proportion of those which are bred in England leave it in the autumn, to join the vast flights of hawks which are seen to pass periodically over the Mediterranean Sea, on their way to Africa.

“Last summer I visited twenty-four nests in my park, all with windhover’s eggs in them. The old birds and their young tarried here till the departure of the swallow, and then they disappeared. During the winter there is scarcely a windhover to be found. Sometimes a pair or so makes its appearance, but does not remain long. When February has set in more of the windhovers are

seen, and about the middle of the month their numbers have much increased. They may be then heard at all hours of the day; and he who loves to study Nature in the fields may observe them now on soaring wing, high above in the blue expanse of heaven, now hovering near the earth, ready to pounce upon the luckless mouse, and now inspecting the deserted nests of crows and magpies, in order to secure a commodious retreat wherein to perform their approaching incubation. Allowing, on an average, four young ones to the nest, there must have been bred here ninety-six windhover hawks last summer: add the parent birds, and we shall have, in all, one hundred and forty-four. Scarcely five of these birds were seen here from Michaelmas to the latter end of January.

“The periodical disappearance of the windhover from its breeding place might give rise to much ornithological inquiry; but I suspect that when every circumstance shall have been duly weighed, we shall still be in the dark with regard to the true cause of its departure. The want of food cannot be supposed to force it away; for food the most congenial to its appetite is found here in great abundance at the very time when it deserts us. Neither can supposed inclemency of weather be alleged in support of its migration, as the

temperature of England is remarkably mild long after the sun has descended into the southern hemisphere.”*

Throughout the whole of the weald, which comprehends about half the county of Sussex, the kestrel or windhover is moderately dispersed during the breeding-season. In this wooded district it adopts the deserted nest of the carrion crow or magpie, but although I have taken considerable pains to ascertain, from constant personal observation during several years, the extent of its distribution here at this season, even in those localities where it was obviously of more frequent occurrence than in others, I could never find that it was numerous as a species in any portion of this region. For instance, on a well-wooded manor of nearly two thousand acres, where game and gamekeepers had been equally scarce for many years, I could not discover more than four establishments of the windhover during an entire spring and summer, although I explored every crow's nest that I could find, and frightened many a magpie out of its own lawful habitation. Now admitting that an equal number had escaped my detection — which I think is scarcely possible

* ‘Essays on Natural History,’ first series, 3rd edition, page 261.

—still this species must be considered as comparatively sparingly distributed throughout this part of the county during the spring and summer months. At the same season I have repeatedly examined other districts, and from my own observation, and the concurrent testimony of local observers on whom I knew I could rely, I conclude that this bird is then much less numerous in *all* parts of this county than in the north of England.

During the months of May, June and July I have occasionally found it among the parks and plantations situated on the sandstone formation between the weald and the Downs; also among the beech woods of the latter, and in the neighbourhood of the heathery commons immediately to the north of that range of hills. They are, however, more numerous on the coast to the east of Brighton than in some other districts of Sussex at this season; although even there they do not appear to congregate to such a degree as in similar situations in other parts of England, and they are certainly less abundant on those chalk precipices, which, commencing at Kemp-town, terminate at Beachy Head, than among the grey cliffs of the wealden rock which lie to the eastward of Hastings: but as autumn draws near their numbers gradually increase in all parts of the county, and at the very period when Mr. Waterton

describes them as leaving his neighbourhood—that at which the swallow takes its departure—they are perhaps more numerous here than at any other time of the year. The maritime tract extending from Brighton to Chichester, the whole range of the Downs, the highly-cultivated district between them and the weald, and the open portions of the forest range in the eastern division, abound with numbers of this species, which seem to accumulate in the neighbourhood of the coast as the winter approaches. Many of these are, of course, birds of the year, but a considerable proportion are adult, and I am convinced that I have seen more of the latter during a morning's walk among the fields, about the latter part of October, in the neighbourhood of Worthing, than could have been found in half the county during the breeding-season.

When the corn has been reaped, and the process of gleaning—or leazing, as it is here termed—finished, the kestrel may be seen hovering over the stubbles: then, and for a long time afterwards, those fields abound with their favourite prey. Let us bear in mind that the arboreal beetles (*Lucanidæ*, *Melolonthidæ*, *Cetoniadæ*, &c.), and the large moths and grubs of different kinds, which constitute so great a proportion of their daily food during the summer months, have

now in a great measure disappeared, or are becoming difficult to discover: accordingly, as the season advances, we find the windhover leaving our woods and forests for the open fields, especially where the sickle has revealed the long-concealed runs of the field-mouse (*Mus sylvaticus*), and where the scattered grain attracts wandering parties of the short-tailed vole (*Arvicola agrestis*). This, the most destructive of our diminutive quadrupeds, equally injurious to the farmer, the gardener and the proprietor of young plantations, is now devoured in considerable numbers by the kestrel. With the view of satisfying myself on this point, I have occasionally shot and dissected the bird at this season, when the contents of the stomach removed all possibility of doubt. I have also found the harvest mouse (*Mus messorius*), which, as well as the young of the long-tailed species, is frequently bolted whole by this bird, after the manner of an owl: but scarcely any kind of large insect or diminutive quadruped comes amiss. It luxuriates in grasshoppers. On one occasion I observed a male kestrel beating a small meadow for nearly an hour, flying much closer to the ground than usual, and every now and then dropping down, and occasionally, but not invariably, securing something in the grass. On paying still closer attention to his manœuvres,

although I felt convinced that nothing but insects could furnish such an uninterrupted succession of victims, I was still at a loss to discover the particular species to which he seemed so partial. I therefore went into the house for my gun, and returning in a few minutes, found him still engaged, and so entirely was his attention absorbed by his sport that I had no difficulty in walking up and shooting him directly. The stomach contained a mass of half-digested grasshoppers, and the proventriculus was literally crammed with them, and with nothing else. Food of this kind of course soon becomes scarce as the autumn advances; the same may be said of reptiles; and of the different species of mice which constitute its staple support, some retire on the approach of winter to their subterranean burrows under the roots of trees, or occupy the deserted cellars of the mole; others, which had taken to the meadows in the early spring, or haunted their favourite corn-field during the summer, and afterwards perseveringly gleaned the stubble as long as a grain of wheat or barley was to be found, now take up their winter quarters in the comfortable rick close by, beyond the precincts of which they seldom venture during the inclement season of the year. Here, then, the supplies are cut off with a vengeance, and as the windhover invariably

prefers fur to feather, seldom, as far as my experience goes, killing even a young lark — which, however, occasionally forms an exception to the rule—where mice are to be obtained, it is not difficult to imagine that if half the numbers of this prolific hawk which are bred in England, were to remain with us during the dead of winter, the country would fail to furnish such a quantity of their natural aliment as would satisfy the wants of all, and they would either starve or be compelled to do violence to their tastes, and to prey upon many species of birds which they had heretofore left unmolested. But although several kestrels remain scattered at intervals through our woods and over our moors during this season — when I have known an instance of a female killing and devouring a wounded partridge — yet the great body of those which gradually concentrate near the coast during the autumn and afterwards disappear, certainly seem to be on their passage from the more northern and central parts of the island, preparatory to their migration from this country to some southern region, where their favourite food may possibly abound during the winter. As early as the latter end of February, or the beginning of March, we again notice a considerable addition to their ranks, but in the following month, the woods in the interior and the cliffs on

the coast contain only the usual number that sojourn with us during the breeding season; and on the whole the species appears to be but moderately distributed throughout this county until the arrival of new migratory parties from the north during the following autumn.*

* It has been my anxious wish to exclude as much as possible from these pages all matters of a controversial nature, and I have cautiously abstained from entering into the subject of migration, as a "*quæstio vexata*," which would appear to have baffled or puzzled so many great zoologists. "Who shall decide when doctors disagree?" Still, one's views and opinions will, however carefully kept in check, occasionally ooze out, as it were, in spite of one's self. Even so I find that I have been unconsciously attempting to account for the migration of the kestrel. Should these remarks ever meet the eye of the distinguished author whom I have just quoted, and whose interesting and truthful descriptions must endear him to every lover of Nature, I hope he will not think that I am ambitious of running a tilt with him in a field where he has already gathered so many laurels.

LETTER VI.

"The thieves have bound the true men : Now could thou
and I rob the thieves——!"—KING HENRY IV.

The Sparrowhawk pre-eminently a Bird-destroyer—Adaptation of Structure to Habits—Separation of the Sexes during Winter — Recklessness when in pursuit of its Prey—Anecdote — Injurious to feathered Game during the Breeding Season — Remarkable Instance of Voracity—A Family of Poachers—Their depredations — Capture of the Gang.

As the windhover is the most insectivorous, harmless, and even useful of our native Falconidæ, so the sparrowhawk (*Accipiter nisus*), in proportion to its size and powers, is the most carnivorous of the family. Unlike the kestrel, it prefers birds to quadrupeds, and from its great courage and audacity, as well as a silent and stealthy mode of approaching its unsuspecting victims, its depredations among the feathered tribes far exceed those of any of our raptorial birds. By the way, the

form of the foot and length of the toes appear to furnish a tolerable indication of the characteristic propensities of several species in this family, which vary considerably in the different genera. Thus, the kestrel (*Falco tinnunculus*), a true falcon—as indicated by the prominent tooth in the upper mandible and the dark iris—is more nearly allied in its habits and the nature of its prey to the buzzards and harriers (*Buteo*, *Circus*, &c.), than to its congener, the peregrine; while the sparrowhawk (*Accipiter*), which in many particulars departs from the type of the true falcon—such as in having the upper mandible furnished with a smooth festoon instead of a tooth, in the iris being of a bright yellow, the tarsi slender and elongated, and the wings short and rounded—yet approaches the peregrine in its decided predilection for feathered prey, as well as in the general fearlessness of its character: but although presenting so many points of difference in external aspect and structure, yet in one important respect these two birds agree; in both, the toes are exceedingly long, and admirably adapted for grasping and penetrating the dense plumage of birds; while the buzzards and harriers, which, in common with the kestrel, prey chiefly on quadrupeds, reptiles and beetles, and require rather strength

than elongation of the prehensile organs, are all furnished with comparatively short and stout toes.

The sparrowhawk is generally diffused throughout Sussex, but is much more numerous during the summer in the weald than elsewhere; and although subjected to at least an equal share of persecution with other members of the family, yet either from the nature of that thickly-wooded country, or the anti-Malthusian propensities of the bird itself, it still appears to hold its ground, and to defy that power which has nearly exterminated so many of its congeners, and almost swept from our fauna such a list of comparatively harmless and interesting species. In none is the superior size and strength of the female so conspicuous as in this bird, so much so, that some ornithologists were formerly inclined to believe in the existence of more than one species. When foraging for their young, the female attacks the game-preserve, the poultry-yard and the dovecot, while her diminutive partner skims along the hedge, and picks off the terrified yellowhammer or the crouching bullfinch from the bushes, or plunges into the evergreens after the sparrow and emerges on the opposite side with his screaming victim in his talons.

During winter the adult females still keep to the great woods, the game-preserves, and the

neighbourhood of the farm-yard; but the males are more frequently met with in those parts of the county which are partially enclosed, and where flocks of larks and lesser conirostral birds haunt the fields on the borders of thick hedges and coppices. During hard weather and prolonged frost the sexes separate still more widely, the female remaining in the interior, and the male following to the coast the swarms of small birds of all kinds which then congregate in the fields near the shore. In the severe winter of 1838-9, when I passed much time in the pursuit of wild-fowl at Pagham, I noticed one morning as many as twenty male sparrowhawks hanging on the skirts of a miscellaneous army of little birds, which extended, with slight interruption, for some miles, between Aldwick and Selsey, and harassing their outposts like a hostile party of Cossacks. There was not a female sparrowhawk among them, and these males were known to the people on the coast and its neighbourhood by the name of stone-falcons.

The following is a striking instance of the blind impetuosity of this bird when in pursuit of its prey. In May, 1844, I received from Burton Park an adult male sparrowhawk in full breeding plumage, which had killed itself, or rather met its death, in a singular manner. The gardener was

watering plants in the greenhouse, the door being open, when a blackbird dashed in suddenly, taking refuge between his legs, and at the same moment the glass roof above his head was broken with a loud crash, and a hawk fell dead at his feet. The force of the swoop was so great that for a moment he imagined a stone hurled from a distance to have been the cause of the fracture. On dissecting the bird I found that there was a good deal of extravasated blood on the upper surface of both lobes of the brain and around the optic nerves, the eyes being also much suffused, but no portion of the body or limbs presented any marks of violence, except a slight laceration of the alular feathers on one wing and the plumage of the breast.

I have already alluded to the destructive habits of the sparrowhawk: the depredations of this little tyrant of our woods and groves certainly surpass those of any other British bird of prey, in proportion to its size, and unfortunately, as I have said, many of our rarer and comparatively harmless birds are compelled to suffer for its misdeeds.*

* The cuckoo, as every one knows, bears a strong resemblance to the male sparrowhawk at a distance—its general form and manner of flight being very similar—when the beak and feet are not seen. In a remote part of Sussex

I could enumerate many instances of its almost incredible voracity which have come under my notice, but let one suffice. It occurred in the summer of 1842, as I find by reference to my journal for that year, from which the following details are literally transcribed. I should premise that I was at that time living in the weald, about six miles to the north-east of Petworth, and that I had taken considerable pains to increase the number of pheasants in the wild, picturesque hangers and woods with which my residence was surrounded, and where, when once established, these birds become literally *feræ naturæ*, finding abundance of insect-food during the summer and quantities of acorns in the autumn and winter, and affording an attractive object of pursuit to those who prefer wild sport and hard fagging to assist-

I once encountered a native who exercised the double calling of bailiff and "varmint"-killer, and who, on my remonstrating with him for having shot and crucified so many innocent cuckoos, assured me very gravely that although those birds were called cuckoos during the summer, they became hawks in the winter; the bill and claws gradually assuming the true falconine character. This was near the coast, where the sparrowhawk is rare during the summer, but where the males abound, as I have shown, during the winter.

ing at the slaughter of the barley-fed victims of a battue. I was endeavouring, as I said, to encourage this species of game in my neighbourhood, having due regard at the same time to the welfare of my friends the kestrel and the jay, much to the disgust of my keeper—a thorough bred “varmint”-killer—who made his appearance one morning in a state of considerable excitement, his countenance presenting an expression of horror and indignation, through which, however, I could detect a smile of secret satisfaction when he informed me that a *hawk*—with an emphasis on the hated monosyllable—had carried off several young pheasants from the coops on the lawn—but here let the journal speak for itself.

“*June 23, 1842.* Denyer the keeper has just come up to the house, to tell me that during the last two days he has missed several of the young pheasants. He went at daybreak this morning to the coops, in the neighbourhood of which he lay concealed. Soon afterwards a loud screaming and cackling among the hens announced the arrival of an enemy, and by the time that D. had emerged from his hut of oak boughs, gun in hand, he had the mortification of seeing a hawk, out of shot, carrying off one of the young pheasants in its claws. I have no doubt that the thief is a sparrowhawk, and that unless we can extirpate the

family we shall lose several of our tame birds. He observed the direction in which the hawk flew with its prey, and I have therefore recommended him to search the woods carefully in that quarter for the nest, and to keep a sharp look-out near the coops in the early morning, at which time the previous attacks appear to have been made. I regret much that an engagement at a distance, compelling me to be absent from home for two days, will prevent me from taking a personal share in these operations.

“*June 26.* Returned home yesterday evening; and the first object that met my eyes on driving up to the hall door was a row of dead sparrow-hawks, seven in number, which D. had impaled, each upon its own peculiar stick, with its wings spread and tail expanded, as if to make the most of it: there were the Amazonian old female, and the little cock, with his dark back and red breast, and five immature birds, some of them larger than the latter.

“It was not long before Denyer made his appearance with a game-bag in his hand, and gave the following account of his successful expedition:—

“Having, with the assistance of Puttock the gardener and a bird-nesting lad, carefully examined the great wood of Dunhurst, in which direction

the old sparrowhawk had flown with the young pheasant, they at last found the nest in a thick oak tree; it was very broad and flat, constructed on that of a carrion crow, but apparently much enlarged, being considerably wider, although not so deep. Hearing the cries of one of the young hawks at a little distance, he concealed himself in the underwood, and waited until the old male arrived at the nest with a lark in his claws; him he shot, and then mounted the tree to examine the nest, which he found nearly filled with dead birds which the old hawks had procured during their foraging expeditions for their young. The latter were absent, but D. could hear their sharp cries from different parts of the wood. His next care was to set a trap in the nest without removing any of its contents, and he had not waited long before he caught the female, with a young chicken in her talons. He then proceeded to empty the nest, and could scarcely trust his eyes at the sight—here he shook out upon the grass for my inspection the contents of the bag—there were fifteen young pheasants, about the size of quails—some rather larger—four young partridges, five chickens, a bullfinch, two meadow pipits and two larks, all in a fresh state. Puttock, the gardener, who helped D. to remove them from the nest, corroborated his statement, and I certainly

saw and counted the victims myself, all of which had evidently been killed by a bird of prey.

“The last operation of Denyer was to shoot the young sparrowhawks, which, although nearly full-grown and capable of flying, were unable to provide themselves with food. This he effected by remaining quietly under the tree, until the birds, whose gradually increasing hunger was evinced by their louder and more frequent cries, by degrees approached nearer to the nest, and were shot one after another to the number of five.”

Now, what strikes me as more especially worthy of notice in this case, is the fact that the young birds are not supplied with food at a distance from the nest after they have left it, but that while these yet haunt its neighbourhood, and are still incapable of providing for themselves, the old ones convert it at once into a larder and refectory, which they stock with a constant supply of freshly-killed prey, to which the others resort when pressed by hunger, and are there fed by their parents, and probably receive their first lessons in the art of plucking and breaking up their dinner.

This will appear to be a wise provision of Nature, if we reflect upon the difficulties and delays that would attend the operation of feeding the young birds separately at this stage of their existence — when their appetite is probably the

keenest—far from the nest, and at a considerable distance from each other.

LETTER VII.

"When Autumn scatters his departing gleams,

Warn'd of approaching Winter, * * *

* * * * *

O'er the calm sky, in convulsion swift,

The feathered eddy floats; * * *

* * * * *

* * into warmer climes convey'd

With other kindred birds of season, there

They twitter cheerful, till the vernal months

Invite them welcome back; for, thronging, now

Innumerable wings are in commotion all."

THOMSON'S SEASONS.

Periodical transit of Flocks of small Birds through the County—Various Species—The Goldfinch—"Harbour-Birds" and "Flight-Birds"—Anxiety of the Bird-catcher—Pied Wagtail—Arrival on the Coast in Spring—Plumage—Pilgrim Fathers—Progress to the Interior—Return towards the Coast—Determined Direction of Flight—Geographical Considerations.

I HAVE for a long time been inclined to believe that many British birds, usually supposed to be permanent residents, as well as those generally admitted to be summer or winter visitors, perform

a double migration every year, and I may add that repeated observation has tended to strengthen me in this conviction. The numerous flocks of certain species which pass in rapid succession along the southern parts of this county in an easterly direction during the early autumn, when they are captured in great numbers by professional bird-catchers in the neighbourhood of our maritime towns, have apparently congregated from the more distant parts of the island, and are evidently bound for the continent, to which, like bipeds of a nobler race, they have no objection to make a short cut by the Straits of Dover; but whether impelled to the performance of this pilgrimage by a desire to take up their winter quarters in a more genial climate, or by the apprehension of an insufficient supply of the favourite food of the tribe if its superabundant numbers were not relieved by timely emigration, or by an irresistible instinct of which they are unconscious, but which doubtless has been implanted in them by an all-wise Providence; certain it is, that during the period occupied by the autumnal movement of these flocks, a far greater number of the species which they comprise pass along the shores of our county in a single day, than would be found to occupy its entire area at any previous or subsequent time of the year.

The advanced guard of this emigrant host usually makes its appearance in the neighbourhood of Worthing, Shoreham and Brighton, about the latter end of August or early in September, and is generally composed of detachments of meadow pipits* (*Anthus pratensis*), pied wagtails (*Motacilla Yarrelli*), tree pipits (*Anthus arboreus*), and yellow wagtails (*Motacilla flava*), the two first-named species being generally understood to be permanent residents in England during the whole year. Many of those birds certainly do remain with us during the winter, but I am disposed to think that these are the natives of more northern and western counties, which, having proceeded thus far towards the south-east, are, as it were, satisfied with this partial migration, and do not cross the Channel, unless subsequently compelled to do so by unusual severity of weather at a much later period of the year.

But the troops of these autumnal voyagers do not consist merely of dentirostral or exclusively insectivorous birds; the conirostral tribe furnishes

* Some idea may be formed of the number and extent of these flocks from the fact that one skilful bird-catcher, a few years ago, took in the neighbourhood of Brighton, with a clap-net, as many as twenty-four dozen of meadow pipits in a single morning. This was early in September.

many recruits, goldfinches (*Carduelis elegans*), grey linnets (*Linota cannabina*), and green grosbeaks (*Coccothraustes chloris*), pass in considerable numbers; and such multitudes of the first-named species are occasionally taken,* that the market of the song-bird dealers is literally glutted with them, even their most capacious family-cages being quite filled with recently captured goldfinches; and from this circumstance, as well as from the comparatively trifling value attached to these birds at this season—when, from the immaturity of the greater proportion of the little prisoners, and the deficient state of their plumage, the sex cannot be satisfactorily ascertained—they are frequently doomed to death, and being afterwards tied up with yellow wagtails, green grosbeaks and grey linnets, in variegated bundles, from which their own little crimson heads protrude like ripe berries, they are hawked about by the juvenile members of the bird-catching fraternity, and occasionally sold to those who can find it in

* May not this account in some degree for the total disappearance of the goldfinch from certain inland counties during the winter months? Herefordshire, for example; a fact to which the editor of the 'Zoologist' has directed the attention of his correspondents. 'Zoologist,' vol. iii. page 984.

their hearts to purchase such an ornithological bouquet.

I have already said that many of our conirostral or hard-billed birds, as well as others of the denti-rostral or insectivorous division of the *Insessores*, hitherto supposed to be constantly resident, at least in the south of England, leave this country in considerable flocks about the beginning of autumn, and return to it in diminished numbers during the ensuing spring. It would be taxing your patience too much if I were to transcribe from my journal all the notes and records committed to paper within the last few years which bear upon this particular subject; such an infliction might test even your ornithological zeal too severely, and would necessarily exceed the limits of many letters; but feeling, as I do, that the subject is one of more than common interest, I propose to select two well-known examples, which have heretofore been supposed to be constant residents in our island, the goldfinch and the pied wagtail; the one a hard-billed bird, the other soft-billed: and an account of their migrations will be sufficient to illustrate my theory, and perhaps comprehend as much as would prove interesting to you on this subject.

Of the departure of large flocks of goldfinches in the autumn I have already spoken, a few, how-

ever, remain in different parts of the county throughout the entire year, and in winter are generally found on wild, bushy ground, among the remote valleys of the Downs, or on hedges near waste land or commons. The periodical arrival of fresh birds in the spring is well known even to the most inexperienced bird-catchers in the neighbourhood of Brighton, and anxiously expected by them for many days previously: the goldfinches which have remained all the winter are called by them "harbour birds," meaning that they have sojourned, or harboured — as the local expression is — here during that season; those which arrive in April are called "flight birds." When the latter are expected the bird-catcher watches his nets with an anxious countenance, and his disappointment is great, if upon releasing from the meshes a newly captured prisoner, he perceives by the dull-coloured back, dirty red forehead, and general shabbiness of the plumage, that it is only what he contemptuously terms "a harbour bird." Far different are his feelings when he entraps one with a light-coloured back, snow-white cheeks, and bright vermilion forehead; he knows then that "the flight" has commenced, and the hour of sunrise finds him at his post on the following morning, anxious to avail himself of the precious moments.

It is worthy of remark that the "harbour birds"

are much more shy than the newly arrived "flight birds," which, with their plumage advanced to that of the breeding season—the effect of a warmer climate—are comparatively tame and easily caught; they are at once attracted by the decoy bird, and fly into the net in unsuspicious haste.

Goldfinches again become numerous in October, when detached parties, including the young of the year, which have been spread through other portions of the island during the summer, approach the coast, and pass eastward in succession, until they find—on the shores of Kent as I imagine—a favourable spot for crossing the Channel.

The pied wagtail* arrives from the continent on the shores of Sussex about the middle of March. Although several remain here during the winter, these bear but a small proportion to the numbers that visit us in the spring. On fine days during this season I have frequently seen them approaching the coast, aided by a gentle breeze from the

* A few years have elapsed since I was first struck by the incorrectness of the received opinion that our pied wagtail was migratory only in the northern, but stationary in the southern counties of England; and a portion of the following remarks on that bird appeared at the time in a communication to the 'Zoologist,' and were subsequently noticed by Mr. Yarrell, in the 2nd edition of his 'History of British Birds.'

south, their well-known call-note being distinctly audible, under such favourable circumstances, from a considerable distance at sea, even long before the birds themselves could be perceived.

The fields in the immediate neighbourhood, where but a short time before scarcely an individual was to be found, are soon tenanted by numbers of this species, and for several days they continue dropping on the beach in small parties. The old males arrive first, presenting the beautiful jet black and pure white plumage of the breeding season, while the females, and the males of the preceding year which still partially resemble their partners—the feathers on the back being of an iron grey colour—do not make their appearance until a few days afterwards. It may be observed that the white on the forehead and cheeks of these newly arrived birds is much more pure at this time than in those which winter in England, and altogether they have a fresher and a cleaner appearance than even they themselves present a short time after their arrival in this country.

Some of the old males seem to have made their nuptial contract before their departure from the continent; for after alighting on the shore they exhibit many signs of restlessness and anxiety, performing short flights and incessantly calling for their mates.

It is worthy of remark that those pied wagtails which remain with us during the winter, do not assume the summer garb at so early a period as their travelled brethren; indeed, on the arrival of the latter, which generally make their appearance in the full nuptial plumage, the former have but partially commenced the change, only a few black patches beginning to show on the throat, and the light gray of the back being varied with occasional feathers of a darker hue. In about a fortnight afterwards this process is complete, and at the expiration of that time the pied wagtails which have arrived from the continent, and those which have sojourned in England during the winter, present the same appearance.

After remaining in the neighbourhood of the coast for a few days, these birds proceed inland in a northerly direction; and any practical observer in the interior of the county may perceive how much their numbers increase at this period. There is scarcely a pool, road-side ditch, or village horse-pond, where they may not be seen in pairs, and this in districts where, but a week before, the species was thinly distributed.

Pied wagtails moult soon, about the end of July or early in August. The black feathers gradually disappear from the throat in both sexes, and the dorsal plumage becomes of a lighter

colour in each ; the back of the male being scarcely darker than that of the female during the summer, which now assumes a still paler grey. Young birds of both sexes resemble the latter.

About the middle of August there is a general move towards the sea-coast, and these birds now first appear to become gregarious.

At this season I have frequently noticed them in considerable numbers on village commons and similar localities in the interior of the county, where they remain but a few days, making way for fresh detachments, which, in their turn, pursue the same route towards the south. About the latter end of the month, or in the beginning of September, an early riser, visiting the fields in the neighbourhood of the coast, may observe them flying invariably from west to east, parallel with the shore, and following each other in constant succession. These flights continue from daylight until about ten o'clock in the forenoon ; and it is a remarkable fact, that so steadily do they pursue this course, and so pertinacious are they in adhering to it, that even a shot fired at an advancing party, and the death of more than one individual, have failed to induce the remainder to fly in a different direction ; for, after opening to the right and left, their ranks have again closed, and the

progress towards the east has been resumed as before.

I have observed that their proximity to the coast during this transit from west to east seems to depend in some degree upon the character and extent of the country intervening between the Downs and the sea. For instance, in the more westerly portion of the alluvial district which may be said to extend from Chichester to Brighton, the flocks of pied wagtails are evidently less numerous, appear to be more scattered, and to occur at greater distances from the coast, than at its eastern extremity. This, I think, may be accounted for. In the neighbourhood of Chichester, Pagham and Bognor, that flat, maritime tract attains its greatest breadth; tall hedges, well-sheltered meadows, and highly-cultivated fields lie around, and offer many inducements to these pilgrim bands to divide their forces, and even to pause in the midst of their journey, while at the same time their movements are here in some measure concealed from ordinary observation. But as they advance towards Brighton, where the bleak, naked Downs approach the sea, and the intervening plain becomes narrower, the fields being more open and the fences low and trifling, these migratory flocks seem to accumulate—to become, as it were, more concentrated—as they

follow each other in rapid succession towards the east.

It would appear that these birds — the greater part of which are the young of the year, at this time but a few months old and unequal to protracted flights — in thus steadfastly pursuing this course, are impelled by a wonderful instinct to seek the shores of the neighbouring county of Kent, from whence the voyage to the continent may be performed with ease and security. At any rate, from this period, throughout the whole county, the species continues to be comparatively but sparingly distributed, until augmented by fresh arrivals from the south during the warm days of the ensuing spring.

LETTER VIII.

"Nature to them, without profusion, kind,
 The proper organs, proper power assigned;
 Each seeming want compensated of course,
 Here with degrees of swiftness, there of force;
 All in exact proportion to their state,
 Nothing to add, and nothing to abate."

POPE.

No Gap in Nature — Harriers — Variety of Plumage —
 Different Species — Examples in Sussex — Owls —
 Eagle-owl — Living Collection at Arundel Castle —
 Donjon-keep — Breeding in Confinement — Prisoners
 at large — Tawny or Wood Owl — Gradual Disappear-
 ance — Utilitarian Spirit antagonistic to the Pictu-
 resque — Ivy unjustly condemned — Short-eared Owl
 — Scops-eared Owl — Occurrence in the County —
 White, or Barn Owl — Innocence vindicated — The
 Sanctuary — Rites of Hospitality.

How truly it may be said that there is no gap
 in Nature! To the general student of Natural
 History this fact is beautifully displayed at every
 step; but even in the comparatively limited sphere
 of British Ornithology, we have ample opportuni-
 ties of observing how close is the affinity between

the various families of birds, and how insensible are the transitions from one genus to another. Thus, the short-eared owl (*Otus brachyotos*)—*Strix accipitrina* of earlier authors—appears in some respects more like a hawk than an owl—as in the incomplete development of the facial disk, the rapidity of its flight, the boldness of its attack, and its diurnal habits; while the hen harrier (*Circus cyaneus*)—*Falco cyaneus* of Linnæus—seems to be as nearly allied to the owls.

Of the three species of *Circus*, the marsh harrier or moor buzzard (*Circus æruginosus*), the hen harrier, and Montagu's harrier (*Circus Montagui*), the second is by far the most generally distributed, although all three must now be considered comparatively rare in Sussex, even on the gorse-covered Downs, exposed moors, and marshy commons where they once abounded.

The great variety of plumage presented by birds of this genus, now clearly ascertained to be referrible to age and sex, might easily have induced a belief in the existence of many species, at a period when this portion of British Ornithology had been but little investigated. The males of the two latter, after the first autumnal moult, gradually assume the adult plumage, which appears to be at least three years in arriving at perfection; the upper parts being then generally of a

bluish grey, and the lower white; the most obvious distinction between the two, next to the lighter and more elongated form and tern-like flight of Montagu's bird, being the presence of a transverse belt of a dark colour across the secondaries, and several ferruginous bars on the under wing-coverts. The females are respectively larger than the males, of a brown colour, varied less or more with several shades of yellowish red, the longitudinal spots or streaks on the lower parts becoming more narrow and distinct, and the ground of a lighter colour, as they advance towards maturity. The young of the year resemble the females, but the plumage is less streaked or variegated. The male of the marsh harrier or moor buzzard, although, like others of the genus, subject to a change which may be dated from the first autumnal moult, yet never arrives at that gull-like state of plumage characteristic of the other two species; the wings and tail alone, even in very old birds, assuming the bluish grey colour, the head and throat being whitish, and the remaining portion of the body presenting different shades of dark and ferruginous brown.

Although formerly of common occurrence on the uncultivated heaths of this county, many of which still continue in their primæval state, the marsh harrier is now one of the rarest of

our *Falconidæ*. I have never known an adult male procured during the last ten years in Sussex, and but few specimens of female, or immature birds. Montagu's harrier is more frequently met with. A male and female are in the possession of a gentleman at Brighton, which were shot at Wiversfield, in June, 1847. As both birds were adult, and had been observed together for some time previously, it is probable that their nest was in the immediate vicinity. In September, 1844, a male was shot by the Duke of Norfolk's head keeper, near Arundel, and another in December of the same year by a gentleman at West Wittering. I have seen a beautiful specimen, an adult male, at Hollycombe, which was obtained in that neighbourhood on the borders of Wolmer Forest; and another, a female, which had been taken in a trap baited with a rabbit's scut, at Oafham, in March, 1842.

The hen harrier is, as I have said, much more generally distributed, and examples, for the most part immature, are shot or trapped every year, and figure either in the gamekeeper's larder or the cabinet of the collector.

Through this group of the *Falconidæ* we pass, by an easy gradation, to the owls; for the loose and yielding character of the plumage, the presence of a facial disk, or ring of short, curled

feathers which partially defines the outline of the face, and a general lightness and buoyancy of frame, evince an obvious departure from the character of the falcons and hawks, and an approach to those birds of the night which have not inaptly been termed the moths of the feathered race.

The eagle owl (*Bubo maximus*) is said by Montagu, Yarrell and Jenyns, to have been met with in Sussex; such high authority is of course sufficient to entitle it to a place in our local Fauna; but although I have not been able to ascertain a second instance of its occurrence here in the wild state, I cannot refrain from alluding to the unrivalled living collection of these magnificent birds at Arundel Castle, existing in a condition more nearly approaching to a state of nature than, I believe, ever before fell to the lot of any animal which had been partially deprived of its liberty by man. They inhabit a considerable space circumscribed by the massive, ivy-covered walls of the old Donjon keep, into the deep fissures of which they retire to rest during the broad day, and emerge from these recesses on the approach of evening. The fact that these birds have here not only performed the duties of incubation, but even reared their young occasionally—the only instance, I believe, on record of any bird of prey breeding when deprived of its liberty—would alone prove

their perfect reconciliation to the very qualified captivity to which they are subjected.

The tawny or wood owl (*Syrnium aluco*) is still found in the thick covers of the weald, and in old parks, to which this bird now appears to be chiefly restricted. Although in its persecution at the hands of the keeper it does not present such a case of injured innocence as the barn owl—a young leveret or rabbit occasionally varying its nocturnal sport—yet I believe that feathered game is rarely or never molested by it; while rats, mice, small birds, reptiles, and large insects constitute its regular prey.

This species was, even a few years since, more numerous than at present in our great woods; which I attribute, not so much to special persecution, as to the disappearance of nearly all the aged oak trees which used to form such a distinguishing feature in our woodland scenery, and in the hollow recesses of which the tawny owl deposited its eggs and reared its young. An opinion has for some time been prevalent among proprietors in these districts, that under the existing state of duties on foreign timber, and the present high value of oak bark, it “pays better,” as the phrase is, to fell the trees when comparatively young, than to suffer them to arrive at maturity, as their ancestors did. Under these circumstances there is but little

chance, as there used to be, of some huge son of the forest, whose premature decay perhaps had escaped the notice of the woodman, affording an asylum to this bird, and the same cause has tended to diminish the numbers of the whole family of woodpeckers, and of the long-eared owl (*Otus vulgaris*), which used to build its nest in the dense masses of ivy with which the more aged trees were clothed. In the utilitarian spirit of the present day, which repudiates all perception of the picturesque, these survivors of centuries have been grubbed up and condemned as cumberers of the ground; and an erroneous idea having been propagated that ivy is injurious to the growth of timber trees, as tending to absorb a portion of the sap from the bark which it encircles — although it is through its own root alone, which is in the ground, that the plant derives any nourishment* — we see trees which a few years ago were clothed with perennial masses of ivy, now covered with brown patches of its dead and decaying leaves, and on a closer inspection perceive the fatal wound where the unrelenting bill-hook of the woodman had severed the bole of the beautiful evergreen.

* For a triumphant defence of the ivy, see Waterton's Essays, 2nd series, p. 68.

The short-eared owl (*Otus brachyotos*) occurs on our open heaths about the latter end of October, and its appearance here, as elsewhere, is generally hailed as the harbinger of the first flight of woodcocks; but although I have frequently met with it in such situations, and occasionally in turnip and stubble fields, I believe it to be much less generally distributed here than on the eastern coast of England. It is an autumnal visitor from the north, appears to be less incommoded by daylight than any of its congeners, and flies, even during sunshine, with a degree of boldness and decision which alone would serve to distinguish it from the others. Its prey appears to be similar to that of the kestrel. The stomachs of three which I examined contained the remains of field mice, young rats, and the elytra of different species of beetles.

The eggs and nest of this bird have been found in Norfolk, but I believe that it has never been known to breed in this county.

Of the occurrence of that rare visitor, the Scops-eared owl (*Scops Aldrovandi*), I can record only one instance in Sussex. It was shot some years ago at Shillinglee, the seat of the Earl of Winter-ton, and was subsequently in the possession of a member of the family.

The white or barn owl (*Strix flammea*), pre-

eminently typical of the genus, is the most generally distributed, although by no means so common as in some other counties. Our farmers have at last discovered that the occasional disappearance of poultry from the yard, or of pigeons from the dovecot, is not to be laid to its charge, and that even the vaunted services of the cat in purging the barn and the haggard of rats and mice, fall far short of those performed by its powerful ally, this useful and really valuable bird.

Some of these owls have lately found a sanctuary in the yews and ivy of the churchyard at Petworth, and their hard breathing, late in the evening, has more than once arrested the attention of the passers by, who fancied that some jovial neighbour had been "brought to," and was reclining in an adjacent gutter, under the somniferous influence of the potations dispensed at the beer-shop, having there taken advantage of the legal indulgence "to be drunk on the premises."

I have the satisfaction of exercising the rites of hospitality towards a pair of barn owls, which have for some time taken up their quarters in one of the attic roofs of the ancient, ivy-covered house in which I reside. I delight in listening to the prolonged snoring of the young when I ascend the old oak stairs to the neighbourhood of their nursery, and in hearing the shriek of the parent birds

on the calm summer nights as they pass to and fro near my window ; for it assures me that they are still safe ; and as I know that at least a qualified protection is afforded them elsewhere, and that even their arch-enemy the gamekeeper is beginning reluctantly, but gradually, to acquiesce in the general belief of their innocence and utility, I cannot help indulging the hope that this bird will eventually meet with that general encouragement and protection to which its eminent services so richly entitle it.

LETTER IX.

"Omnes eodem cogimur."

HORACE.

Carrion Crow — His Haunts and Habits during the Summer — Hammer-ponds — Crow - Mussel — Winter Haunts of the Hooded and Carrion Crows — Partiality of several *Corvidæ* to the Sea-coast at this Season — Local separation of two nearly-allied Species — Probable Cause.

THE carrion crow (*Corvus corone*) is a well-known bird in most parts of Sussex, but more especially frequents the wooded districts north of the Downs during the spring and summer, where, notwithstanding the dangers to which he is occasionally exposed from bird-nesting boys and vigilant gamekeepers, the species seems to have found a strong hold, and does not appear to be sensibly diminishing.

After the bursting of the leaf it is difficult to discover his haunts; so shy and solitary are his habits, that two nests are seldom to be found in the immediate neighbourhood of each other: and

here, amidst forests of oak, and dense thickets, interwoven with briars and brushwood, he dwells in comparative security, and has ample opportunities of indulging his vagrant habits and his predilection for all kinds of animal food. Besides the young of small quadrupeds, carrion of all kinds, and the eggs of pheasants, partridges and poultry, he is exceedingly fond of a species of fresh-water mussel (*Anodon anatina*) which abounds in all the brooks and ponds in the clay district of the weald of Sussex, and from this circumstance, has among the country people acquired the local name of "crow-mussel."

After continued and heavy falls of rain the meadows in the neighbourhood of these brooks are inundated to a considerable extent, and quantities of this shell-fish, disturbed from the muddy bed of the stream, are carried over and deposited on the banks, where they remain high and dry after the falling of the water. On such occasions the carrion crow is not idle: as the floods retire he may be seen issuing from the neighbouring woods, expressing his delight, or announcing his discovery to his mate by his frequent croakings; flying steadily along the edge, but checking his progress every now and then to seize and devour a newly exposed prize; while another may be observed parading up and down the banks, wading knee-

deep in the shallower parts of the stream, and anxiously watching the receding waters; or occasionally plunging in his head and dragging out a mussel, which he demolishes forthwith: the shell being brittle, two or three smart blows of his beak suffice to break it, and the contents disappear in a moment.

Immense quantities of this bivalve are found in the numerous ponds which form so distinguishing a feature in the wooded scenery of the weald, and attract the attention of all strangers who visit this part of Sussex. Many of these are the remains of establishments for the smelting of native iron, before the Swedish metal came into such general use; and the names of "Furnace-pond" and "Hammer-pond," which are still applied to some of them, serve to point out their origin. They frequently abound with fish, and are usually drained at an interval of a certain number of years; carp, tench and eels are found in considerable numbers, and the decayed vegetation which has accumulated at the bottom in the form of mud—the result of the falling of the leaf from the overhanging woods during many successive seasons—is afterwards dug out and thrown up on the banks to be used for agricultural purposes, and in this state the ponds are suffered to remain for some time before the water is allowed to

return, and the stock-fish re-introduced. Then indeed an ample and welcome feast is prepared for the carrion crow: the bottom of the pond and the banks above being literally studded with the fresh-water mussel. I have never observed so many carrion crows assembled together as on such occasions, and the banquet lasts for several days, until nothing remains but scattered fragments of the empty shells.

On the approach of winter the carrion crow retires from the wooded districts and proceeds to the sea-coast, at a somewhat later period than that at which the hooded crow (*Corvus cornix*) arrives in this country from the north; and the partial distribution of these *Corvidæ* at this season, involving, as it does, the local separation of the two species, appears to me to be worthy of observation.

A few years since, while residing during the winter near the sea in the western part of the county, I remarked that the carrion crow was common in the estuaries of Chichester harbour, and along the whole line of shore from Selsey Bill to Bognor, where I also met with the raven occasionally at this season; but I never could detect the occurrence of a single hooded crow within the same limits. This struck me as the more remarkable, from having previously observed that the

last species is exceedingly numerous about twenty miles to the eastward, in the neighbourhood of Shoreham and Brighton, where the carrion crow is, in its turn, equally scarce. I may add that my subsequent observations have proved the above remarks to be correct, and that they have been corroborated by the testimony of local observers whose attention I had drawn to the subject.

This peculiarity in the local distribution of the two species, while impelled by the same instinct to frequent the shores of our county during the winter months, is certainly remarkable. It can hardly be attributed to mutual dislike or hostility. The well-authenticated instances which are on record of the hooded crow having paired with the carrion crow in a wild state would refute such an idea.* Perhaps the varying character and aspect of the country in the immediate vicinity of the sea may afford a clew to unravel the mystery.

To the eastward, near Brighton, and for many miles in that direction, the naked Downs approach the coast, and present a considerable extent resembling—at least in the absence of wood—the native haunts of the hooded crow in Orkney and Shetland. A natural predilection for such a country may therefore induce these birds to

* See Yarrell's 'History of British Birds.'

prefer the neighbourhood of this treeless tract to the wooded and highly cultivated region which extends to the very shore in the more western part of Sussex; and admitting this conjecture to be correct, the partiality of the carrion crow to the latter district may be accounted for in a similar manner.

I should have observed that carrion crows, even where they occur in the greatest numbers during the winter months, as at Pagham harbour and the inlets of the sea to the south of Chichester, seem always, more or less, to live in pairs, and never assemble in large flocks, as hooded crows are well known to do in the immediate neighbourhood of Brighton, and even on the beach between the houses and the sea.

The food of both these birds, as well as that of the raven, at this season of the year consists of oysters, mussels, small crabs, marine insects, worms and dead fish which are cast up by the waves. Indeed even the rook is driven by the same necessity to the sea-coast during the prevalence of severe frost, and partakes of the same fare. At Pagham, in the vicinity of the oyster-beds, I have frequently seen the carrion crow ascend to a great height in the air with one of these fish in his claws, and after letting it fall on the beach, descend rapidly with closed pinions,

and devour the contents, which, but for the shock or fracture occasioned by the fall, he would have been unable to disengage from the shell. I have since observed the hooded crow, near Brighton, resort to a similar expedient.

The latter birds make their appearance about the beginning of October, haunting the upper parts of the tide rivers at Shoreham and Newhaven, and the fields at some distance from the coast, gradually becoming more gregarious and more marine in their habits as winter approaches. They congregate in considerable numbers every night in a small plantation of fir trees, at Stanmer Park, situated on an elevated portion of the demesne called "High Park Corner." Those which haunt the shores in the neighbourhood of Brighton seem to restrict themselves to this roosting-place; at least I have not been able to detect another within several miles of that town.

These hooded crows depart rather suddenly for the north about the latter end of March. I have frequently noticed as many as thirty assembled on the beach opposite Brunswick Terrace, and in a few days afterwards perhaps not a bird was to be seen. The carrion crows commence their return from the coast to the interior at a somewhat earlier period, and, as might be expected from their having sojourned in pairs during the winter,

their disappearance is not so sudden and simultaneous, but they gradually become less numerous, until at last they entirely desert the shores for the woods and forests of the interior.

LETTER X.

——— “As a falcon from the rocky height,
Her quarry seen, impetuous at the sight,
Forth springing instant, darts herself from high,
Shoots on the wing, and skims along the sky.”

POPE'S HOMER.

Peregrine Falcon — Eyrie at Beachy Head — Lofty Precipice — Beachy Head in the Breeding Season — Jackdaws — Guillemots and Razor-bills — Herring-gulls — Kestrels — Waterfowl at Burton — “The Duck-hawk” — Shooting a Friend for a Foe — Unexpected Capture — The Hobby a Miniature Peregrine — Hobby and wounded Partridge — A good Specimen — Occurrences of the Hobby in Sussex.

THE sight of a falcon now-a-days — as the author of the ‘Fauna of Norfolk’ justly remarks — “is somewhat like that of the rusty mail or the monument of a departed hero — the memories of the past crowd upon the mind, when these birds, now proscribed and almost annihilated amongst us, were the favourites of ladies, and the companions of princes.”

But even apart from romantic or sporting asso-

ciations, there is an air of independence and an individuality of character about the *Falconidæ* that alone would render the group the most interesting of the feathered tribes ; and when, besides all this, we see them, like the aborigines of North America, gradually yielding to the pressure of what is called "civilization," and disappearing from their native woods and mountain fastnesses where a few years since they had it all their own way, as the poor Indians among the prairies of the West, a feeling of pity is superadded to our regard for the persecuted race, and their habits, manners, and even casual appearance, assume in our eyes a twofold interest.

The peregrine falcon (*Falco peregrinus*) may be considered a rare bird in Sussex. As we have no inland precipices, and the coast to the westward of Brighton is generally flat, the favourite haunts of this bird lie to the eastward of that place. A pair have from time immemorial bred near the summit of one of the highest cliffs at Beachy Head, and although the nest has frequently been robbed of the young ones, and either of the parent birds has occasionally fallen a victim to the trap or gun, yet it is surprising with what pertinacity the position is still held, and the right of tenure kept up by the survivor, who in a short time finds a disengaged partner of





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the opposite sex, the latter at once entering upon the performance of its duties as spouse or parent, as the case may be.

On my last visit to Beachy Head, I was much struck by the watchful jealousy with which the peregrines seemed to guard the particular cliff—more than 500 feet above the sea—on a lofty ledge of which their nest was situated, and which, indeed, they evidently considered their own especial property: with the exception of a few jackdaws who bustled out of the crevices below, all the other birds which had now assembled on this part of the coast for the breeding season—it being about the middle of May—seemed to respect the territory of their warlike neighbours. The adjoining precipice, further westward, was occupied by guillemots and razor-bills, who had deposited their eggs, the former on the naked ledge, the latter in the crannies in the face of the cliff. Here the jackdaws appeared quite at their ease, their loud, merry note being heard above every other sound, as they flew in and out of the fissures in the white rock, or sat perched on a pinnacle near the summit, and leisurely surveyed the busy crowd below. In a cliff still further to the west, near Newhaven, another pair of peregrines have also an eyrie, and an extensive colony of herring-gulls is established, while in the same neighbour-

hood a pair of ravens annually rear their young ; and the kestrel may be seen fluttering along the margin, or dropping over the edge of the precipice on his return to his own little establishment from a mousing expedition into the interior.

All these birds, with the exception of the raven, occasionally fall a prey to the peregrine ; his rapacity when pressed by hunger or the calls of an importunate family, is equalled only by his courage and audacity. I have seen him strike and carry off a herring-gull, apparently with the most perfect ease, and it would appear that he does not scruple to make a meal of his congener, the kestrel, in situations where the latter bird happens to be unusually abundant. A writer in the 'Zoo-logist,'* — who seems to have had excellent opportunities of observing the peregrine during the breeding-season in the immediate neighbourhood of his residence, and whose interesting communication on its habits is well worthy a perusal — says that it even evinces a partiality for the poor kestrels which resort to the same cliffs on the southern coast of the Isle of Wight.

The peregrine falcon is seldom seen in Sussex during the summer months, the interior of the county offering, as I have said, no spot favourable

* The Rev. C. Bury.

for its eyrie ; indeed, except at Newhaven, I have not been able to ascertain that a second pair were established, even on the coast, during the breeding-season, although the great locomotive powers and wandering propensities of this bird might induce a hasty observer to imagine that a greater number were quartered on the cliffs between Brighton and Beachy Head.

During the latter part of the autumn the young peregrines, being then able to provide for themselves, are banished by their parents from the nest, and being left to shift for themselves, commence "the grand tour" on their own account.

These at first linger for awhile in the neighbourhood of the scenes of their youth, but eventually scatter over the world, and doubtless it is from their ranks that deficiencies, caused by the death of older birds during subsequent breeding-seasons, are supplied with such mysterious rapidity.

A falcon of this species occasionally makes his appearance during the winter in the neighbourhood of the lakes, or large ponds, in Burton Park, about three miles south of Petworth. The banks of these waters are covered with masses of reeds, and abound at all seasons with wild ducks, teal, coots and water-hens, whose numbers are reinforced during the winter by flocks of wigeon,

pochards, and scaup-ducks, as well as by considerable parties of their own species ; while a fair sprinkling of snipes and woodcocks are found along the higher margins, and among the numerous grassy tussocks which extend far into the swampy plantations near the borders of the upper lake. The game in the surrounding woods and the fishing being strictly preserved, these birds dwell here in comparative security, and as the waters furnish them with an abundant supply of their natural food, they have no inducement to wander beyond the precincts of the park. Great, then, is the general consternation when the duck-hawk* — as the old keeper calls him — makes his appearance. Taking up his position on a tall fir tree commanding a view of the pond, he selects a victim from the terrified flock as they fly hurriedly along, dashes after it with incredible swiftness, sweeps it almost from the surface of the water, and disappears with it among the neighbouring reed-beds, while its companions, suddenly veering round, return again, as if unwilling to quit the spot which has so long afforded them a safe asylum ; but after a day or two they become thoroughly scared, and may be found among the

* The name by which the peregrine is also known in America.

brooks in the open country: indeed the first intimation I have frequently received of the presence of the peregrine at Burton, has been the sudden appearance of several "wisps of snipe," even in open weather, among the low meadows at a considerable distance; and little parties of teal and wild ducks congregating at every turn of the river, where the high banks afforded them a chance of concealment, and where, though comparatively exposed to greater danger, they might be found until the death or expulsion of the enemy from their old quarters.

Specimens of this falcon have been shot near Lewes, Newhaven, Seaford, Pevensey, and Rye, in the eastern, and in the neighbourhood of Chichester, Petworth, and Arundel, in the western division of the county. It has also occurred occasionally, though rarely, in the wooded portion of the weald. A friend of mine has in his possession a specimen of this bird which was shot in that part of the country by a farmer, who mistook it for a wood-pigeon, immense flocks of which abound there during the acorn season. On the present occasion the man was endeavouring to protect his ripe peas from their depredations, and for this purpose, having concealed himself behind a tree, and placed a stuffed pigeon, as a decoy, in the middle of the field, he awaited the arrival of

the first party that might pass within reach of his gun. He had not been there long before a peregrine falcon swept by, and made a dash at the lure, but discovering his mistake, almost at the very moment when he seemed to strike it, rose with the quickness of thought, and flew into a tree about thirty yards from the spot where the farmer lay concealed. The latter, who still imagined it to be a wood-pigeon—never before having seen a peregrine—fired, and killed the falcon, thus unconsciously destroying his best friend, and depriving himself of a most powerful ally in thinning the ranks of his feathered enemies.

A falcon was caught in a singular situation last September at the farm of Saddlescombe, between Shoreham and the Devil's Dyke. While engaged in taking sparrows under the thatched eaves of a barn, the farmer was surprised at the sudden plunge of a heavier body into the net, whose violent struggles among the meshes, and the liberal use of its sharp claws, at first induced him to believe that he had captured a cat. It turned out, however, to be a peregrine—a bird of the year.

Although, from a general similarity both in aspect and structure, the hobby (*Falco subbuteo*) has been correctly styled a miniature peregrine, yet, unlike that species, it prefers the wooded

district of the weald to the Downs or the open country near the coast; being here a summer visitor, and occasionally taking up his quarters in the nest of a carrion crow. Yet even in these his favourite haunts, he must be considered scarce, and you will rarely discover his decaying form among the rows of defunct hawks which garnish the gable end of the keeper's cottage — a sort of ornithological register which would appear to indicate, with tolerable accuracy, the prevalence or scarcity of any species of raptorial bird in its immediate neighbourhood.

The courage and address of this hawk are remarkable. When shooting with a friend a few years ago, during the early part of September, we observed a hobby pursuing a partridge, which, having been wounded in the spine, was then in the act of "towering." The little fellow proved himself to be a true falcon, by the rapidity with which he rose above his quarry in rapid circles, "climbing to the mountee," as our ancestors termed this manœuvre, with all the ease of a peregrine. Unfortunately at this juncture the partridge became suddenly lifeless — as is the case with all towering birds — and fell to the ground, while the hobby, apparently disdaining to accept a victim which he had not obtained by his own exertions, scudded away after a fresh covey which

just then rose from the farther end of an adjoining stubble field, and we lost sight of him for a short time as he dashed after the frightened birds into a thick wood where they had hurried for protection. His pursuit, however, must have been unsuccessful, for he soon reappeared, following the dogs as they quartered the field, and evidently keeping a watchful eye on their movements; but unfortunately, passing within an imprudent distance of my companion, was unrelentingly bagged by him. I must, however, plead guilty to having last summer shot a bird of this species myself a few miles to the north-east of Petworth. It was in a wild, unenclosed part of the country, on the brow of a steep hill, covered with fern and studded with spreading oaks and large holly trees. I was admiring the unusual size of the latter, and that beautiful provision of Nature, only to be seen to advantage in full-grown hollies, by which the foliage on the lower branches, which drooped upon the ground, was protected by a spiny armour from the half-starved flocks around—the upper leaves, which were out of their reach, being at the same time quite destitute of prickles—when a turtle dove suddenly dashed by, closely pursued by a hobby, which, from his black cheeks and red thighs, I saw at a glance was a male bird in full nuptial plumage. My first impulse was to stand

still and watch the sport, but a conviction that I should lose sight of both birds among the trees, and a recollection that *such* a specimen would form a valuable addition to my cabinet, altered my plans in a moment, and I had just time to bring him down with a snap-shot as he turned suddenly after the dove, which had already disappeared behind an oak. However, if the country had been more open, so as to have admitted of a view of the chase, I might perhaps have allowed him to pursue his quarry unmolested.

In the eastern division of the county the hobby has been killed near Battle, Pevensey and Lewes; it has also occurred more frequently in various parts of the weald, and has been met with occasionally on the south side of the Downs. There is a specimen in the Chichester museum which was shot at Halnaker in September, 1836, and I have observed it near the great beech woods on the higher Downs during the autumn: indeed it is at this season that the hobby has been generally killed. They then evidently visit this southern county in common with so many of our summer visitors who intend to pass the winter months in a more genial climate.

LETTER XI.

"Nature teaches beasts to know their friends."

CORIOLANUS.

The Merlin — Stealthy Mode of Approach — Merlin and Redwings — Occurrences in Sussex — Merlin on Snipe Bogs — Chase of wounded Snipe — A valuable Ally — Sport in Company — Good Understanding — A New Confederate — Tactics of the Jack-Snipe.

THE merlin (*Falco Æsalon*) is a winter visitor to Sussex, and seems as partial to the bleak and exposed situations near the coast as is the hobby to the woods of the interior. I do not remember having ever seen this little falcon among the covers on the clay soils of west Sussex, but I have noticed it in the wilder portions of the forest range to the east of Horsham, near Crawley and Worth. It also occurs on various parts of the sandstone formation immediately to the north of the Downs, more especially where it spreads into wide heaths, as in the neighbourhood of Rogate, Midhurst, Duncton, Parham and Henfield; on most of which I have noticed this bird.

In a partially enclosed country it flies low but rapidly when foraging for prey, and I have more than once seen it exhibit great skill in masking its approach on such occasions; skirting some thick hedge or high bank for a considerable way, at the other side of which it had apparently marked a party of larks or starlings feeding in an open field. On scuds the little hawk, and so accurately does he calculate his distance, that when he arrives opposite the spot where the birds are regaling in fancied security, he suddenly drops over the fence and strikes a victim in a moment.

I once observed a female of this species at Kelsom Moor, near Petworth, when the heath was covered with snow, skimming along under the brow of a hill, so close to the ground as almost to touch her own shadow, strongly cast as it was and well defined by the sunshine on the white surface. She continued this course for some time, and then, suddenly veering to the left, rose rapidly above a clump of holly-bushes and made a dash at a flock of redwings which were feasting on the coral-like bunches of berries that covered the branches, but missing her swoop, she soon singled out a bird for a fresh experiment, and as if ashamed of her former system of tactics, had recourse at once to open warfare, pressing her

quarry so severely that it was obliged to mount aloft, its only chance of escape being to keep above its pursuer ; but all in vain : it proved less expert at this manœuvre than the lark or even the snipe, and after a short flight was clutched by the merlin, who, as she came over my head in her rapid descent towards a rough, broken part of the moor at a little distance, appeared scarcely larger than the bird in her talons.

I have observed this species during the winter in the neighbourhood of the coast at Pagham and Selsey, and on the Downs eastward of Brighton ; it has been killed near Hastings, Uckfield and Rye, and has occurred in other parts of the county. I once met with an immature specimen at Upwaltham, on the hills between Petworth and Chichester, as early as October, but this I consider an unusual occurrence. Adult males* are exceedingly rare, almost all that I have examined were females or birds of the year, and I have not been able to ascertain that it ever breeds in this county.

I cannot refrain from introducing here an episode illustrative of the sagacity and fearlessness

* In North Wales young merlins are called stone-falcons, a term which Mr. Yarrell informs us should be restricted to the old males. In Sussex* it is generally applied to male sparrowhawks during the winter.

of this little falcon, as it is the result of my own observation, although in a part of the British Islands very remote from that in which I now write.

Some years ago, when snipe-shooting on a range of strictly preserved bogs in the west of Ireland, the merlin was, I may say, my daily companion. I find, by reference to memoranda of that date, that I commenced operations in the beginning of November, generally taking the field about eleven o'clock in the morning, and bagging on an average from ten to twenty couple of snipes during the day, besides a few hares, woodcocks and wild ducks. I well remember the first time the merlin made his appearance with the obvious intention of sharing my sport. I had just entered one of those wet moors—surrounded by partially cultivated land—which in favourable weather are much more productive of sport than the extensive “red bogs,” when a couple of snipe rose near the margin. Bang, bang, went both my barrels, and while one bird fell dead, the other, slightly but perceptibly wounded, ascended to a considerable height, and from the direction of its flight was evidently preparing to drop in a marsh which I had just left. While my eyes were fixed upon its movements I perceived a merlin advancing rapidly towards it, and struggling through the air,

as if afraid that in spite of its exertions it would still be too late. The snipe, although wounded, yet attempted to ascend higher, but finding itself unequal to the task, yielded, as it were, to the breeze which was blowing freshly at the moment, and — contrary to its usual habit — flying *down* wind with extraordinary rapidity, seemed to trust to speed for its escape: but swift as it was, its enemy was swifter still, and when after the lapse of a few seconds the two birds had become like specks in the distant sky, I could perceive that one of these gradually gained on the other, touched it, and then both melted into one larger dot, which slowly descended to the ground. ▸

“Ah!” cried my Celtic attendant, “that’s the snipe hawk” — using an Irish word which I now forget, but which, when interpreted, bore that signification — “and a brave little chap he is.” Then suddenly turning round, he bestowed a volley of curses — varied with a few whistles — on a wild young setter who was galloping incontinently over the yet unbeaten ground, turning a deaf ear to all Pat’s imprecations, while she treated with equal disregard the significant movements of old Pluto, a veteran pointer, who, with stiff tail and protruded muzzle, was advancing cautiously towards a bed of rushes, and just beginning to settle down into a comfortable point. I need

hardly tell you that at that moment the hawk was forgotten for the snipe, and it was not until the afternoon, in a distant bog, that I again recognized my little friend, the merlin, hovering about, and every now and then appearing about to leave us, but as quickly returning, and evidently hanging on in expectation of our starting some of his favourite game. As for the snipe, they lay like stones while he continued overhead; old Pluto pointed them one after another, even Fan condescended to "back," and I had to kick them up under the nose of the former, as they sprang reluctantly from the rushes, and presented a succession of the most satisfactory shots imaginable; which was the more gratifying as they had been unusually wild during the previous part of the day. After bagging several, at last one rose at a considerable distance—quite out of shot—and away went the merlin after it. We watched the chase for a long time, both birds appearing equally matched, but they disappeared before it came to a close, and the shades of evening soon afterwards reminded me that I had five miles to walk home before dinner.

Well, on my return a few days afterwards, there was the merlin again on the same bog! I could perceive him, as I topped a hill which commanded an extensive view of the country, scudding along

towards us in a joyous sort of flight, as if to say "you are welcome, I have been waiting for you a long time, come and begin at once." And truly he was more confiding than ever, following me from one marsh to another, and evidently distinguishing and appreciating the respective performances of man and dog. It was not long before he discovered that the capture of a wounded snipe was attended with far less trouble to him than the pursuit of a sound one, and he soon became so fastidious in this respect as to allow those birds which were sprung out of shot to depart without giving chase to them, while he looked to me to put such a retainer on some of those which rose near me as should render the completion of the work an easy matter for him.

When a snipe was killed dead he never meddled with it, but if it fluttered and fell at a distance he would frequently drop on it as it touched the ground, and begin plucking and devouring it. I made it a rule never to interfere with him on such occasions, unless I wished to keep his talents in reserve for an aërial exhibition, in which case the nimble-footed Pat would run forward and bag the snipe as quickly as possible, before the little hawk had fairly commenced his meal; although when he perceived our intention he would generally succeed in carrying it to some

distance, expostulating all the time, with loud and angry shrieks, at what he evidently considered a breach of our compact.

After my third or fourth visit to those bogs the merlin was always there to receive me, and was subsequently joined by a companion, a female, both of them continuing to attend me in all my snipe-shooting expeditions on that side of the country. Sometimes, at the very commencement of the day's sport, I might perhaps be unaccompanied by my little friends, but the first report of my gun was generally sufficient to summon one or both of them to my presence, and a wounded snipe, however slightly touched by the shot, had no chance of escape from their united efforts. First one would rise above it in a succession of circular gyrations—for he was unable to ascend in such a direct line as the snipe—then he would make a swoop, and if he missed, his companion, who in the mean time had been working upwards in a similar manner, would next try her luck, and in this manner they would pursue the quarry, until the persecuted bird, unable to ascend higher or any longer avoid the fatal stroke, was at last clutched by one of the little falcons, while the other would hasten to “bind to it,” and all three descend together into the bog. After a performance of this sort an hour would occasionally elapse before the

return of either of the merlins — sometimes more, sometimes less—but they never seemed willing to give up the sport until at least three snipes had fallen to their own share.

The jack-snipes (*Scolopax gallinula*), which were tolerably abundant, but which I seldom considered worth shooting, used to endeavour to evade the deadly stroke of the merlin in a very different manner from that adopted by the common or “full” snipe, as it is there termed, and with far greater success. Difficult to spring at all times, it was almost impossible to start this cunning little fellow from the heath when his enemy was on the wing: indeed, without the co-operation of Pluto the attempt would have been utterly futile; but when the steady gaze of that infallible quadruped continued to be rivetted on a particular bit of ground, on every inch of which you had already trod except the very one under his nose; then might you have staked your existence that on that identical spot a jack-snipe lay squatted, and when at last discovered and started, instead of flying boldly away and endeavouring to escape by power of wing, this little fellow would perform a puzzling zig-zag sort of movement for forty or fifty yards, utterly mystifying the merlin, and then suddenly dropping on the ground, would defy us

all — except Pluto — to discover his whereabouts again.

I shall never forget my last day's snipe-shooting there, or my farewell look at the merlins. I may say, without affectation, that I parted from them with sincere regret. They had been my companions for more than two months, had not only shared my sport, but had added very materially to it, by affording me a contemplation of theirs ; and they convinced me that a friendly, if not a familiar intercourse might be established between man and many wild animals which now shun his presence, without any greater sacrifice on his part, than the simple observance of that golden precept,

“ Live and let live.”

LETTER XII.

"Un manant au miroir prenait des oisillons,
Le fantome brillant attire une alouette."

LA FONTAINE.

Netting and Killing Larks near Brighton—Two Modes—Autumnal Migration—"Chasse au miroir"—Descriptive Sketch—Lark-netting in the Winter—Mode of Capture—Dark Nights—" *Experientia docet.*"

THERE are two modes of killing larks in the neighbourhood of Brighton which are worth noticing. The one lucrative, and adopted by professional birdcatchers; attended moreover with a certain degree of labour and hardship, and requiring some skill and perseverance: the other a comparatively idle occupation, or amusement, and as repugnant to the feelings of the true sportsman, as are the piscatory achievements of a punt-anchored cockney to the salmon-fisher of Connemara! Nevertheless, as an indulgence in this pastime is very general during three or four weeks in the year, and as it involves the consideration of a peculiar instinct or habit in the

bird itself, I feel tempted to give you a brief description of it.

The soi-disant sportsman provides himself with a certain implement called a lark-glass, which may be fashioned in different ways according to the taste or whim of the fabricator. The following is a rough sketch from a highly approved article of this kind — a regular syren in its way — which had lured many thousands to their doom.

A piece of wood about a foot and a half long, four inches deep, and three inches wide, is planed off on two sides so as to resemble the roof of a well-known toy yclept a Noah's ark, but more than twice as long. In the sloping sides are set several bits of looking-glass. A long iron spindle, the lower end of which is sharp and fixed in the ground, passes freely through the centre ; on this the instrument turns, and even spins rapidly when a string has been attached and is pulled by the performer, who generally stands at a distance of fifteen or twenty yards from the decoy. The reflection of the sun's rays from these little revolving mirrors seems to possess a mysterious attraction for the larks, for they descend in great numbers from a considerable height in the air, hover over the spot, and suffer themselves to be shot at repeatedly without attempting to leave the field or to continue their course.

It is during the autumnal migration of the larks, which generally commences about the 20th of September and continues until the end of October, that this mode of warfare is in vogue. The direction taken by the larks in this periodical flight is exactly the reverse of that observed by almost all the warblers at the same season, being from east to west, and a moderate breeze from the latter point, accompanied by sunshine, ensures what is called "good sport" by those who can find amusement in this occupation. The fields in the neighbourhood of the coast on both sides of the town, are haunted by various parties of shooters from the hour of sunrise until ten or eleven o'clock, about which time the great flights of larks cease or diminish, and there is no small degree of competition among the performers for what are considered the best places; four or five parties sometimes occupying one field, and as many shooters being attached to one lark-glass: but notwithstanding the crowd, and the noise of voices mingled with the continual roar of guns, the infatuated birds advance stupidly to their doom, hover in numbers over the decoy, and present the easiest possible mark to the veriest tyro that ever pulled a trigger.

To any one, however, witnessing it for the first time, the spectacle is sufficiently curious. Per-

haps at this moment, the shooters, having all re-loaded during a pause in the battle, are awaiting the approach of the next detachment. The newly arrived stranger casts his eyes about and sees heaps of the dead and dying, but nothing as yet on the wing to explain the meaning of all those anxious, upturned glances that he notices around him. Presently a voice exclaims "Here they are, look out!" and a cluster of dark specks becomes visible at a great distance. In a few moments he perceives that this is a flock of larks: but surely it is not possible that they will notice that miserable toy which is now spinning rapidly, urged by the frantic exertions of a gentleman in bright yellow gaiters and bran-new shooting-coat, crossed with a virgin shot-belt, who pulls the string violently with one hand while with the other he wields his full-cocked gun as carelessly as if it were a shillelagh! He is mistaken: they suddenly descend with rapidly closed pinions, to within a few yards of the very spot where he stands, or perhaps to a rival lure in the same or in an adjoining field, and hovering over it in apparent delight and admiration, patiently suffer themselves to be shot at, and massacred in considerable numbers.

The birds thus killed are comparatively lean and worthless, not fetching, in the market, within

fourpence a dozen of the price usually demanded for those which are taken by lark-nets during the winter months.

I must now say a few words on the latter mode of capture, as practised in the neighbourhood of Brighton, where these birds form a very considerable article of traffic, and hang in numerous bunches at all the poulterers' stalls in the town and market. The season is from October to March. A net is provided about twenty-five yards long, and from sixteen to eighteen feet wide, with meshes of about an inch and a half in diameter; this net is strengthened by eight lines of a stronger cord, which cross it longitudinally at regular intervals, and terminate at both ends in large loops, which project a few inches beyond the net itself. Through these loops a long and tough pole is passed at either extremity, and the performers, two of whom are necessary, each grasping a pole with both hands, pull in opposite directions so as to stretch the net to its utmost; then, standing face to face, and suffering one end of each of their poles to touch the ground, while the other is inclined forwards, at an angle of about forty-five degrees, in the direction towards which they are about to advance, they commence operations by sweeping the ground until a bird is felt to flutter in the net, when it is immediately

suffered to fall, and the prisoner secured. Some attention to the direction of the wind is necessary ; if possible, it should pass obliquely ; if it were to blow directly into the net, it would cause it to bag too much, and resist their progress ; and if from behind, it would carry the middle portion too much forward, and moreover alarm the birds prematurely.

Dark nights are necessary for this work ; stubble and clover fields and meadows furnish the best supply of larks, but the respective value of each of these localities depends on the previous state of the weather, and in this the old wary netter has a great advantage over the beginner, who frequently toils through many a cold night in vain, until dear-bought experience at last places him among the knowing ones of his calling. If the previous day has been wet, larks are not found in wheat stubbles, but in thick rank meadows, and along the higher brows of grassy fields, where they lie very close until touched by the lower edge of the net. In fine weather the reverse of this occurs ; meadows would then furnish but little sport, for the larks collect in the stubbles, and are taken in great numbers, although they do not lie so close as in the former situations. Strange to say, during the prevalence of storm and rain the exposed side of a hill is usually pre-

ferred to the sheltered; and in the little low valleys, where one would expect the birds to congregate at such a time, the lark-catcher would toil in vain.

No bird is so easily netted as the lark; he generally starts from the ground just before the lower edge of the net touches him, and invariably mounts perpendicularly. This characteristic propensity to ascend at once may be observed by any person who "treads up" a lark in a field, and satisfactorily illustrated by releasing, at the same moment, a newly captured lark and a sparrow from a cage or hat within the precincts of a room. While the sparrow will fly off horizontally, dash himself against the window, and lie almost stunned from the shock, the lark will almost always mount upwards to the ceiling, and flutter there for a time, in vain efforts to reach the sky, before he attempts any other mode of exit: but this habit is fatal to him in the netting season; he might generally escape, as indeed the bunting—or clod-bird—the sparrow and the linnet constantly do, by flying straight forward; but ascending, as he does, directly from the ground, the moment his wings have touched the upper part of the net, it is suffered to drop suddenly, and his capture is then inevitable.

LETTER XIII.

" More pity that the eagle should be mewed,
While kites and buzzards prey at liberty."

RICHARD III.

Misapplication of the term *vulgaris*—The Kite a rare Bird —Its graceful Flight — Occurrence in Sussex—Formerly abundant in the Weald — Honey Buzzard — Characteristic Timber of the Downs and of the Weald — Charlton Forest — Rencontre and Feast disturbed — The Common Buzzard an uncommon Bird — The Puttock — Frequent but Erroneous Use of the Name of " Buzzard " — Anecdote in Point — The Saddle on the wrong Horse — A Gamekeeper's Ornithology.

WITH all due respect for the king of the birds, I cannot but reflect with regret that the quotation which I have prefixed to this letter is not as applicable to our own days as to those of Shakspeare: in fact, the specific term *vulgaris*, or common, however appropriate it may have

been formerly, is now in numerous instances misapplied to many of our British birds; and this remark will hold good in a general as well as in a local sense; in most parts of England as well as in Sussex; for where is "the common kite," "the common buzzard," or "the common bittern" of frequent occurrence now-a-days?

As to the kite (*Milvus vulgaris*), I have never yet been able to obtain a glimpse of it in the wild state in any part of this county, though I have seen it many years ago in Oxfordshire, once in Derbyshire, and occasionally in North Wales. I never met with it in Ireland, and am not aware that it has been seen there.

They who have once had the good fortune to behold this beautiful bird on the wing, have seldom been able to refrain from expressing their admiration of its surpassingly graceful flight, coupled perhaps with sorrow, or some stronger feeling, at the continued persecution which has almost banished it from the woods of England, and must ere long effectually extirpate it as an indigenous species.

I am able to record only two instances of its occurrence in this county, at least such as I consider authentic. The late Mr. Dodd of Chichester, an accurate observer, favoured me, some years since, with a notice that a bird of this kind had

been killed at Siddlesham, on the borders of Pagham harbour.

In 1843 a kite was shot at and wounded by the bailiff on the farm of Withdean, about four miles from Brighton, near the London road ; being only winged, it was kept alive for some time in a garden. I had no opportunity of examining it, either at that time or after its death, as the preservation of the skin had been neglected ; but from the accounts which I received from persons who had frequently seen it, and who particularly noticed the forked tail, I have no doubt that it was an example of that now rare visitor the kite.

I have ascertained that this species was comparatively common in Sussex, about the beginning of this century. All the old inhabitants of the weald remember the forky-tailed kite, but I am sorry to say that among the rural population of that district its disappearance is not so much a matter of regret as with ornithologists ; they still speak of it as the most fearless marauder of the whole tribe of predatorial birds ; and say that such was its partiality for juvenile poultry, that having once favoured any particular farm yard with a domiciliary visit, its attentions were sure to be continued, unless shot or trapped in the interim, as long as a single young chicken remained to follow the hens :

“ * * Le Milan, manifeste voleur,
Eut répandu l'alarme en tout le voisinage,
Et fait crier sur lui les enfans du village.”*

The honey buzzard (*Pernis apivorus*) is of course here, as everywhere else, a scarce bird; but decidedly less so than either the kite or the common buzzard. Being now† only an accidental visitor from the southern and south-eastern parts of the continent, and generally during the latter portion of the summer and autumn, it has escaped the exterminating process which has so long been in force against all our indigenous birds of prey, and I may say that a year seldom elapses without the occurrence of a specimen in this county. I had once an opportunity of observing the honey buzzard in the wild state; it was in the month of August, 1843, when riding through Charlton Forest, which extends over a considerable portion of the Downs to the north of Goodwood. Here the character of the scenery is very

* La Fontaine.

† White of Selborne tells us that a pair of honey buzzards built their nest, during the summer of 1780, on a tall, slender beech tree in a hanger near his residence. I have not been able to discover that it has ever bred in Sussex, or in the adjoining county of Hampshire, since that period.

different from that of the weald. In the latter the oak is predominant, and the surface of the ground is covered with dense thickets of underwood, chiefly composed of the same tree mingled with masses of blackthorn and hazel, while in the more open parts of that region the undulating surface is covered with heather, fern and gorse, and the holly vies with the oak in forming those detached and broken clumps which add so materially to the picturesque effect of such scenery. But Charlton Forest is almost exclusively composed of beech trees, whose tall and naked stems rise to a considerable height from the mossy ground, and then, spreading out into a net-work of branches and foliage, form a canopy overhead almost impenetrable to the rays of the sun.

When riding through its glades on a fine autumnal evening, you might almost fancy yourself carried back to the days of Robin Hood, and expect every instant to see a goodly buck dart across your path, followed by the outlaw himself and "his merry men" in hot pursuit.

I was indulging in some such reverie of "the olden time," when my attention was attracted by the appearance of a large raptorial bird about thirty yards off, apparently devouring its prey at the foot of a beech tree. So intently was it occupied, that it either did not remark or disregarded

my approach, until I had advanced sufficiently near to perceive that it was a honey buzzard in the act of tearing up the soil above a wasp's nest, which it had discovered in an angle formed by two of the exposed horizontal roots of the tree; when, desisting from its work, it ran rapidly for ten or fifteen yards, and then rising with apparent reluctance, sailed away on noiseless wing down one of the open alleys of the forest, keeping near the ground like the hen-harrier, until I lost sight of it behind a little hill at the farther extremity of a long vista.

I should imagine this to have been an immature bird, the state of the plumage, as far as I could observe, corresponding with Mr. Jenyns's description of the young of the year, the head and upper parts being variegated with white spots; but indeed such extraordinary variety of plumage does the honey buzzard present, that I have never yet seen two specimens which exactly resembled each other, having no rival in this respect among British birds, except that feathered harlequin of the fens, the ruff.

The generic characters of the honey buzzard, which appear to have been first appreciated by Cuvier, are sufficiently obvious in a recently killed or in a preserved specimen; but even at the distance at which I observed this bird when on the

ground—although too far to perceive the feathered lore, the reticulated tarsi, or the partially curved claws—there was something about its manner and bearing which was remarkable. Instead of the hop of the sparrowhawk or the leap of the falcon, and the erect bearing of those birds, its mode of progression was a rapid run, after the manner of a lapwing, the head being at the same time partially depressed; and altogether there was an humble and subdued look about it which was quite sufficient to distinguish it from the more martial members of the family.

One or two specimens of the honey buzzard were obtained some years ago in the neighbourhood of Arundel, but I am unable to record any very recent instance of its occurrence on the south side of the Downs. It would appear to prefer the more central and northern parts of the county and the forest range of the weald. There are two Sussex-killed examples in the possession of Mr. William Borrer, of Cowfold. One of these, which was shot in September, 1845, on Poyning's Common, is of very remarkable plumage; the upper part of the head, the wings and the tail being of a dark brown, and all the rest of a beautiful creamy white or light straw-colour: and a specimen in my own collection, which was obtained during the autumn of 1841, between

Henfield and Horsham, both in aspect and the general state of the plumage has very much the look of a gigantic cuckoo when viewed at a moderate distance.

In the forest of St. Leonard a bird of this species has also been shot by Mr. Aldridge's gamekeeper, and it has been met with occasionally still further to the eastward, between Ashdown Forest and the borders of Kent.

The common buzzard (*Buteo vulgaris*) is far more rare; I have never been able to meet with it among the woods where it was once a well-known species, nor have I as yet succeeded in obtaining one within the limits of the county.* I have, however, examined a few recent examples which had been shot in Sussex, and seen a few cabinet specimens which were so highly prized by their possessors as to be unattainable. It would appear to be even more scarce in other parts of England. Mr. Waterton speaks of it as extinct in Yorkshire. He says, "In 1813 I had my last sight of the buzzard;" and the Rev. R. Lubbock, in his 'Fauna of Norfolk,' considers it equally rare in that county. He thus writes:—

* I have lately received a Sussex-killed specimen, which was shot in December, at Stanmer Park, by Mr. Libbeter, the son of Lord Chichester's bailiff.

“The common buzzard (*Buteo vulgaris*) is in these days anything but a common bird. Old books of Natural History speak of it as the most common of hawks. It is so no longer, its size and sluggish habits expose it to observation, and consequent destruction. It used frequently to breed in this county in the larger woods, but what few specimens now occur seem to be occasional stragglers in the autumn, and birds of the year.”

There is no doubt that this bird was formerly very numerous among the great oak woods of the weald of Sussex, and many of the aged inhabitants of that district have told me that they remember “the puttock” as well as the “forky-tailed kite”* in the days of their youth, but that the former was the more common species. The surname of “Puttock,” which here signified “buzzard,” is of frequent occurrence among the families of the labouring population in the western portion of the weald, in the neighbourhood of Kirdford and Billinghamurst, where the characteristic simplicity and many forms of expression derived from their Saxon ancestors still preponderate to a great degree.

* In some counties the kite and the buzzard were indiscriminately called puttocks. *Vide* Yarrell.

In other parts of the county the ring-tail — or female hen-harrier — is indiscriminately called a buzzard or a kite, and the various stages of plumage observable in the male of this bird and its congeners, in their progress to maturity, appear to have originated as many imaginary species. The fact is, that in the good old times when all these hawks abounded in the land, so little attention had been paid to the study of Natural History, that specific distinctions were exceedingly vague and obscure; a slight resemblance in colour being frequently considered a greater proof of affinity between two individuals than similarity of form and structure: and this error, increased by the ever-varying state of the plumage in immature birds of this family, gave rise to a host of provincial names, which in most cases have survived the ordinary occurrence of the species to which they were originally applied; and the mysteries of which — with oral tradition alone for a guide — none but an ornithological Œdipus could ever hope to unravel.

About two winters ago, I had been shooting during the greater part of a bright, frosty day with a friend on one of the wild beats in the weald, and after a good, old fashioned, fagging day's sport, in which pheasants, woodcocks, hares and rabbits had contributed in fair proportions to our bag, we

were returning to the farm where our horses had been put up in the morning, with a team of tired spaniels lagging at our heels, and had just reached the extremity of a large cover, when my eyes rested on the form of a green woodpecker, nailed against an old oak tree, among several rows of jays and magpies, which encircled the trunk, while the lifeless forms of sundry stoats and weasels, and here and there the swollen body of a vagabond cat dangled from the boughs around.

The sight of this beautiful and even useful bird — the woodpecker — condemned along with the ordinary felons of the game calendar, and exhibited, *in terrorem*, on the same Tyburn-tree, seldom fails to excite my indignation, and to elicit something warmer than a blessing on the head of the executioner; but happening to be, on the present occasion, in a particularly good humour with the keeper, as is apt to be the case when the sport has been good and “the powder straight,” I quietly expostulated with him, and endeavoured to prove the manifest cruelty of placing the woodpecker on his black list, by pointing out the really insectivorous habits of the bird. To do him justice, he listened patiently for a time, until warming with my subject, I endeavoured to include jays in my “bill of indemnity,” when his patience gave way, and I soon perceived that I had sunk very

considerably in his estimation. Why, I might as well, he assured me, attempt to defend "that 'ere buzzard-hawk that he trapped last night." "Buzzard-hawk!" I exclaimed, "I see nothing like a buzzard, or even a hawk, on yonder tree, except the wings and tails of a few kestrels that flutter in the breeze under their featherless skulls; and they, too, have no right to a place in this Golgotha, for they do not hurt the game." "No," replied he, "he is not there, but at the farther end of the wood, where I trapped him, and where he now hangs from the branch of a tiller:* he was the plague of my life last summer, and took more young pheasants from under the coops than all the other varmint put together."

"Oh!" said I, "you mean the sparrowhawk." "Oh no!" he "know'd that chap too, well enough, but it wa'nt he." So to satisfy my curiosity, and perhaps obtain a recent specimen of a rare bird—which, indeed, any individual of the *Falconidae* larger than the sparrowhawk has now become—I bade adieu to my friend, and returned with the keeper to a distant part of the wood which we had just quitted. As we threaded our way through the narrow, tortuous paths, or shooting roads, that wound through the thickest parts of the cover, I

* A young growing tree.

had ample time for conjecture as to the species of the promised prize. I should have concluded that it was a female of one of the harriers, were it not that these birds, sufficiently rare in all localities, had never, to my knowledge, been observed in this thickly-wooded portion of the weald, and that even in the more open and moorland parts of the country where they have occasionally occurred, their depredations were of a less determined character than those ascribed by the keeper to the bird in question ; but just as I had almost succeeded in persuading myself into the belief that it might, after all, turn out to be a real buzzard, the voice of my companion interrupted my reflections, and looking up, I saw him pointing exultingly to — a large female sparrowhawk, which hung from the extremity of a branch, one of the slender shoots of which had been twisted in Jack-Ketch fashion round the neck of the bird.

I need hardly add that my attempts to rectify the error under which he laboured were lost upon this uncompromising exterminator of winged vermin, or that I failed to convince him that his “buzzard-hawk” was in reality the lawful partner of what he contemptuously termed “the little chap with the red breast.” To do him justice, however, he was a zealous, though unenlightened member of his calling, looking upon the preservation of

pheasants and partridges as "the whole duty of man," and the massacre of every other species of native bird, larger than a thrush, as the highest effort of human genius.

LETTER XIV.

"Fortunate senex, hic inter flumina nota,
Et fontes sacros, frigus captabis opacum."

VIRGIL.

Petworth Ravens—Expulsion — Gamekeeper's Strategy—
Return—Hollow Beech Trees—Colony of Jackdaws
The Skirmish—Mob Routed — Unexpected Abdica-
tion—Stronghold Demolished—Periodical Departure
—Early Lessons — The Raven's Clump — Retreat
Discovered—Rape of the Squabs — Disappearance of
the old Birds—Plunderer Detected — The Lost Heir
Restored—Result.

THERE are few circumstances which have afforded me greater pleasure, or which, on reflection, I regard with more complacency and satisfaction, than my success in advocating the cause of the raven in this neighbourhood, and even in converting those who were once his enemies and persecutors into his friends and admirers.

For many years the raven had here been but little known. This might in some measure have

been attributable to the gradual disappearance from our great woods of most of the tall old trees on which he loved to build, and perhaps to the absence of that superstitious veneration with which this bird is still regarded in some districts of England ; but more especially to the hostility of the gamekeeper, in whose black book he once occupied a prominent place.

During ten months out of the twelve you may now find a pair of ravens in Petworth Park : perchance, if the sky be clear, you may perceive them soaring aloft, at such a height as would almost ensure their escape from observation, were it not for their joyous and exulting barks, which, in spite of the distance, fall distinctly on the ear ; or if the weather be wet and gloomy, you may see them perched on the summit of one of the huge hollow oaks in the flat of the park, the crooked and withered branch on which they sit projecting like the horn of some gigantic stag from the dense foliage ; or perhaps you may find them concealed in their snug retreat among the evergreen boughs of a clump of Scotch firs near the tower hill,* their favourite haunt during the last five years,

* From the summit of the tower there is one of the finest panoramic views in the county.

and where they now appear to be permanently established.

But to return. Their expulsion from this neighbourhood, many years ago, was as follows.

A pair of these birds had built their nest on a lofty tree in the park, and as a matter of course were discovered by one of the keepers. Suffering them to remain unmolested during the period of nidification, he waited until, deceived by his Machiavellian policy, the ravens treated his appearance, even when armed, with comparative disregard. Ill did he repay their misplaced confidence! One day, when the period had nearly arrived at which an addition to the family was to be expected, and the eggs were in his opinion "sot hard," a rifle-bullet directed through the bottom of the nest stretched the female bird lifeless within it; and shortly afterwards, her partner, who had been catering for her at a distance, was saluted on his return with a volley of shot, which laid him quivering at the root of the tree, and completed the success of the functionary, who in those days used to perform among the feathered tribes the triple duties of judge, jury and executioner.*

* To the honour of the fraternity let me, however, record the following facts. Some years ago, a pair of ravens used to breed annually in Burton Park, disappear-

Years passed away, and the raven continued unknown in this part of West Sussex, until one day in March, 1843, when riding in the park near a clump of tall old beech trees, whose trunks had been denuded by time of all their lower branches, my attention was suddenly arrested by the never-to-be-mistaken croak of a raven, and the loud chattering of a flock of jackdaws.

I soon perceived that these were the especial

ing from the neighbourhood when the young were fledged, but always returning in the ensuing spring.

The head keeper, better acquainted, it would appear, with the habits of birds than persons of his calling are apt to be, afforded them every protection. He had discovered that they were his best friends. Not a hawk, weasel, or indeed any winged or four-footed animal vulgarly designated "vermin," was suffered by the ravens to approach the wood in which stood the tree containing their nest.

Although pheasants and hares abounded in the immediate vicinity, neither these nor their young were ever molested by the ravens. Their foraging expeditions were carried on at a distance, and their food consisted almost entirely of the decomposed flesh of dead animals, or in default of this of rats, and young rabbits procured at the warrens among the Downs.

This state of things was not to continue. In an evil hour the nest was robbed. All the young ones were taken. The old ravens disappeared, and have never since returned to their former abode.

objects of his hatred and hostility ; for after dashing into the midst of them, and executing several rapid movements in the air, he succeeded in effectually driving them to a considerable distance from his nest. During this manœuvre the superior size of the raven became more apparent than when viewed alone, and his power of flight was advantageously exhibited by comparison with that of his smaller congener. The latter, indeed, seemed to bear about the same relation to him in point of size that starlings do to rooks when seen together.

The raven's nest was placed in a fork on the very summit of one of the highest of these trees, while their hollow trunks were tenanted by a numerous colony of jackdaws. Some of the holes through which these entered were so near the ground that I had no difficulty in reaching them when on horseback, while others were situated at a much greater height. These conducted to the chambers in which the nests were placed, and which were generally far removed from the external aperture by which the birds entered their tower-like habitation.

On thrusting my whip upwards into many of these passages, I found it impossible to touch the further extremity, while a few cavities of smaller dimensions were within reach of my hand, and

contained nests constructed of short, dry sticks, some of which were incomplete, while in others one or two eggs had been deposited.

The next day I returned to the place on foot, provided with a spy-glass, for the purpose of observation. On my arrival I found that the ravens were absent, and that the jackdaws, availing themselves of this, had congregated in considerable numbers, and were as busily employed about their habitations as a swarm of bees; some carrying materials for the completion of their frail and yet unfinished nests, others conveying food to their mates, and all apparently making the most of their time during the absence of their tormentor.

There being no cover or brushwood at hand, and the branches being yet leafless, I was unable to conceal myself effectually, but having sat down at the foot of the tree containing their nest, I awaited the return of the ravens.

Nearly an hour elapsed before the arrival of the male bird, and I was first made aware of his approach by the consternation which it appeared to spread among the jackdaws. Like most animals under similar circumstances, when conscious of the approach of danger, they rapidly collected their forces on a single tree, keeping up all the

time an incessant chattering, each bird shifting his position rapidly from bough to bough, while the raven, who held some food in his beak, satisfied himself on this occasion with two or three swoops into the terrified crowd, and having routed the mob he approached the tree in which his nest was placed.

Before arriving there, however, he evidently became aware of my presence, and dropping his prey, which proved to be a rat, he ascended into the air to a great height, in circular gyrations, after the manner of a falcon, where he was soon joined by his consort, and the two birds continued to soar above my head while I remained there, uttering not only their usual hoarse croak, but also an extraordinary sound resembling the exclamation "Oh!" loudly and clearly ejaculated. At first I could scarcely persuade myself that it proceeded from the throat of either of the ravens, but my doubts were soon dispelled, for there was no human being within sight, and after carefully examining one of the birds for some time with my glass, I observed that each note was preceded by an opening of the beak, the distance, of course, preventing sight and sound from being exactly simultaneous.

In the following year the beech grove was deserted for the fir clump. I shall never forget my

delight on discovering their new retreat near the tower hill during the spring of 1844. It could be equalled only by the disappointment I had previously experienced after paying several fruitless visits to their old quarters in the valley. With what different feelings was their abdication regarded by the jackdaws as soon as "the great fact" was satisfactorily ascertained! Although broken sticks in abundance lay around, with ample means for constructing the shallow platform on which they deposited their eggs in the interior of the hollow trees, yet nothing would suit them but the materials of the raven's nest, a general attack upon which seemed to be the order of the day. The work of spoliation had commenced before my arrival, and was completed within a week. Loud and merry were the notes of the noisy republicans as they demolished piecemeal the stronghold of their tyrants, and even seemed to vie with each other in their anxiety to construct their own obscure tenements from its ruins. It was like the attack of a mob on a royal residence, and the erection of a village of cabins from the débris of a palace.

After rearing their young, the ravens and their family generally disappear for a short time during the summer. They then seek an open country without trees or human habitations, where, com-



paratively secure from sudden surprise, they inculcate in their offspring early habits of independence, and appear to superintend their education in the art of flying.

When fully able to shift for themselves the young family are left to their own resources, and the original proprietors of the eyrie return to the fir clump, and haunt the park throughout the greater portion of the year. During very severe weather, accompanied by frost and snow, the raven is sadly puzzled to procure an honest subsistence in this neighbourhood: he is by nature a scavenger, not a poacher; his structure entirely adapts him for fulfilling the duties and satisfying the wants of the former calling. Unprovided with hooked beak or prehensile claws, he seeks not to attack any living creature as long as a dead animal remains on the surface of the earth. Then, indeed, his hard, conical bill, his keen sense of smell, piercing sight, and goule-like appetite, stand him in good stead, but if, during long-continued frost, he should happen still to linger for a while in this neighbourhood, he looks the very picture of despair, as in pensive attitude and with muffled plumage, his dusky figure may be noticed perched on some withered bough. Then, indeed,

“Othello's occupation's gone,”

and in his hour of need he may occasionally be convicted of crimes which are foreign to his nature ; but this rarely happens. On such emergencies the ravens almost invariably migrate to the sea-coast, where they subsist on dead fish and *Mollusca*, to which several species of the *Corvidæ* appear to be equally partial, and which induce the carrion and the hooded crows to desert their inland haunts for the shores at low water, the mouths of the tide-rivers, and the muddy creeks of Chichester harbour.

In their new quarters the ravens now reign unmolested, the nest itself being concealed from ordinary observation among the evergreen boughs near the summit of one of the tallest trees, so as to escape the notice of the wayfarers who traverse Upperton Common, or pass along the high road which here skirts the ivy-covered park wall. Nay, even within the precincts, where these birds and their establishment are now held sacred, those who occasionally visit the spot for the express purpose of "having a look at the ravens," are generally disappointed as they mount the steep hill and approach the clump, at seeing nothing of either of the birds, and at the apparent desertion of the place : but they are quickly undeceived. The short and angry barks of the male are first heard as he emerges from the dark

boughs ; then — if the young have been hatched — he is soon joined by the female, and both continue to soar round the heads of the strangers, gradually increasing their distance until they reach a considerable height, and occasionally varying their usual hoarse cry with the singular note to which I have already alluded. Their retreat is therefore, as I have said, secure from ordinary observation ; but what nest can escape the scrutiny of an Argus-eyed school-boy, especially if his cranium should present a development of the true ornithological bump ? Soon after the ravens had taken up their quarters here, a truant youth, wandering over the Common, with his empty satchel on his shoulder, caught a glimpse of one of the old birds, marked him down into the clump, and having satisfied himself by an exceedingly rapid process of reasoning that its abode was there, and that the discovery and appropriation of its contents would repay him for the perils of the adventure, he scaled the wall, climbed the tree, robbed the nest, deposited four “squabs” — all that it contained — in his book-bag, and escaped undiscovered with his prize.

Imagine my feelings, when, on visiting the fir grove a few days after this occurrence, I could find no trace of either of the old ravens ! At first curiosity was succeeded by suspicion, then sus-

picion by anxiety, and at last anxiety by conviction that something untoward had occurred ; but on entering the clump the whole truth flashed upon me at once : splinters of short, brittle boughs, on which the climber had attempted to rest his feet as he ascended the tree, lay around, mingled with portions of the lining, which was composed of the hair of the fallow deer. Could the robber have taken *all* the young birds ? So to put an end to suspense, I mounted to the nest, clutched one of the branches immediately beneath it, raised myself up, and eagerly peeped into the interior. Empty ! Not a bird, not a feather within it ! Nothing but deer-fur and fledge-dust ! What was to be done ? If even one squab had been left there would still have been room for hope that the attempt to protect the raven in his native haunts might possibly not have turned out, as now, an apparent failure. Another week elapsed, during which all inquiries—and they were many and searching—after the lost ones were unattended with success. I now visited the clump every day, but my ears were no longer gladdened by the welcome bark of the parent birds. Ring-doves and starlings roosted in the branches of the trees, and even the spiteful jackdaw, who had hitherto kept at such a respectful distance, now chattered among the boughs, as if

he could not resist the temptation of having a look at the nest, with a view to appropriating a portion of it to his own use on a future occasion.

Well, at last the young birds were discovered, half starved, in the possession of their original captor, who willingly delivered them up. It was proposed to rear them in a state of domestication, and the operation of clipping their wings had already been performed on three of them, before the idea occurred to me that, even yet, "at the eleventh hour," it was just possible that the restoration of the remaining perfect bird to the nest might have the effect of attracting the attention of either of the old ones if they should happen to revisit the neighbourhood. Although but a "forlorn hope," the attempt was worth the trial. It was late in the evening, I remember, when I put it in execution, and the next morning found me again on my way to the fir clump. Impatient to learn the result of my experiment, yet entertaining only a shadowy belief in the possibility of its success, I hastened to the park. Scarcely venturing to raise my eyes as I ascended the slope, I listened attentively, but no sound indicated the return of my absent friends. However, the scene soon changed, and amply was I repaid for all my previous care and anxiety, on perceiving, as I topped the hill, both the old ravens issuing from the trees,

and flying round my head just as if nothing had happened. I could hardly believe my eyes. It was true, nevertheless: my experiment perfectly succeeded: the young bird was safely reared: the ravens have since brought up several families in the same nest: and as this little episode in their biography has served to increase the interest taken in their welfare by those who have now fortunately the disposition as well as the power to protect them, I trust that they may long live in peace and security, and that if any lover of the picturesque or admirer of our native birds should hereafter visit the tower hill during "trysting time," he may never find "the raven's clump" untenanted.

LETTER XV.

"It is the rarity and difficulty of attainment of a bird that renders the acquisition of it desirable to the true sportsman."—OAKLEIGH SHOOTING CODE.

Shooting in Sussex compared with that in other Countries—The Black Grouse—Its Decline—The Pheasant—Ring-necked Pheasant—Probable Origin—Pied Variety—Whether to be encouraged or not—The Pheasant the Farmer's Friend—The Common Partridge—Red-legged Partridge—The Quail—Partridge-shooting on the Hills—View from the Downs—Pheasant-shooting in the Weald—Woodcock-shooting on the Downs—A Day's Wild Sport.

NORFOLK may boast of her battues ; her woods teeming with hares and pheasants ; her flat monotonous turnip-fields, where a shooting party can march backwards and forwards all day, and slaughter their hundreds of partridges without ever quitting the same enclosure. Scotland and Wales have their steep mountains and craggy glens, their grouse and woodcocks ; and Ireland her trackless bogs, wide-spreading loughs, and unri-

valled snipe and wild-fowl shooting; but although a day's work in even the best preserves of Sussex would not produce such a list of killed and wounded as in some of the countries to which I have referred, or require such self-denial, hard fagging, and exposure to cold and rain, as in others, yet from the varied nature of the sport and scenery it frequently affords a combination of their greatest charms, in as high a degree too as ought to satisfy the aspirations of any keen and reasonable sportsman.

The battue, however, is almost unknown, for although the estates of some of the large landed proprietors—especially in West Sussex—are well stocked with game, yet generally speaking, the broken and irregular character of the country, which imparts to it so many charms, forbids at the same time the concentration of such a mass of victims in one spot as is necessary to gratify that morbid love of slaughter which is supposed to be the chief characteristic of the modern dandy gunner.

I will now proceed to give you some account of our feathered game and sport. In certain parts of the forest range the black cock (*Tetrao tetrix*) is still to be met with. I have seen a few in the neighbourhood of Crawley, but I am sorry to say that the numbers of this, the only indigenous

grouse of which we can boast, are fast diminishing, notwithstanding the laudable efforts of some spirited preservers on whose manors these birds are strictly "tabooed," and where a grey hen is almost as sacred as a fox in Leicestershire ; but for black game, swampy ground is as necessary as the glen and the heather, and moor after moor is enclosed, marsh after marsh is reclaimed ; the species is fast diminishing in number, while the area of its distribution becomes gradually more circumscribed, and a few years will probably witness its total disappearance from among us.

The pheasant is, however, more fortunate, and may be said to be naturalized throughout the whole range of the weald. There, great oak woods, and thick copses of hazel and blackthorn supply it at once with a favourite food* and a safe asylum, and while the impracticable nature of that region tends to baffle the efforts of those light-

* The partiality of pheasants to acorns is well known. Gamekeepers in the weald declare, and with perfect truth, that it is impossible to keep these birds from wandering during what they call "a great year for acres," barley and even beans then losing all their former attractions. At Bedham, on the estate of a friend of mine in this neighbourhood, there now stands a goodly row of oak trees which were raised from a handful of acorns taken from the crop of a single pheasant.

fingering gentry who are adepts in wiring and snaring, the more adventurous night poacher must console himself with but few shots, at great intervals of time and space, and moreover possess an accurate knowledge of the country to enable him to escape detection, and to secure such a booty as will repay him for the hours mis-spent, and the risks encountered in this precarious and unseasonable occupation.

The ring-necked variety, which is common enough in some parts of the county, is less frequently met with in the weald. Its origin may probably be attributed to the introduction of the Chinese species (*Phasianus torquatus*), which, breeding freely with the common pheasant (*Phasianus Colchicus*), became gradually intermixed with it, but possessing less vigour and robustness of constitution, its characteristic plumage was gradually absorbed by its congener, and it has bequeathed nothing but the imperfect ring of white feathers to its descendants.

Pied pheasants are not uncommon, particularly in the neighbourhood of preserves, where the system of rearing poults from eggs hatched under domestic hens has been pursued during many successive seasons. I confess that I am no admirer of these parti-coloured birds, for I regard this aberration from the true plumage as the unfailing sign of

incipient domestication. They are, however, said to be in great request with the poachers, and some doubt exists among gamekeepers as to the expediency of preserving or destroying them. Those who advocate the former alternative, regard the simple fact of their surviving the season as a proof that their beat has escaped the attentions of the nightly marauder; while the supporters of the latter assert that the mere knowledge of their whereabouts must always prove a dangerous attraction. For my own part, if I thought that a compromise could be safely entered into with those slippery sportsmen, to whom knocking birds off their roost can afford

“ ———— delight
On a shiny night,
In the season of the year,”

I should like to see them have a day all to themselves for the express purpose of exterminating these poultry-looking pheasants.

What a mistake it is to suppose that the pheasant is an enemy to the farmer! True, he may deal rather uncereemoniously with newly sown wheat-fields, and occasionally retard or frustrate the labour of the bean-dibbler. He may, without due regard to conventional usages, even venture to anticipate the work of the sickle, and commence his

gleaning operations a week or two before the legitimate time ; but this can happen to an injurious extent only in very highly preserved districts, where those checks have been removed from the species which indeed Nature has placed upon the excessive increase of all animals. But unfortunately the agriculturist, smarting under a sense of these partial injuries, is too apt to overlook the real benefits conferred on him by the pheasant. During the greater part of the year he is his active friend, devouring immense quantities of insects, which in their larva state are so injurious to both green and cereal crops. These principles are inculcated in their earliest education, and you cannot accuse the matron of setting them a bad example. At this season they are all decidedly insectivorous. Look at that group of pheasants — Why do they so assiduously turn over the dead leaves under those tall trees? The acorns and beechmast have long since disappeared, and the keeper has ceased to scatter the beans or barley with which he was wont to supply them regularly during the winter. Why does the mother bird lead her little family to the small ant-hills, or beneath the spreading boughs of the oak which swarm with the leaf-destroying caterpillars?—and why do troops of cock pheasants issue from the woods after a wet night and haunt the neighbour-

ing meadows, slowly advancing step by step, examining every tuft of grass, and patiently "darning" the field for hours together? Be assured for nothing but worms and insects. And then what myriads of that scourge, the wireworm,* do they not consume!

For nine months of the year they are thus usefully employed, and if you were to kill and dissect a pheasant during that period, the contents of his crop would satisfy you that his condemnation is unjust, and that, on the whole, he is rather the friend than the foe of the agriculturist.†

The common partridge (*Perdix cinerea*) is

* This destructive insect is the larva of one of the click-beetles (*Elatér segetis*).

† How much it is to be regretted that the study of Entomology has not been rendered more subservient to practical purposes by those who have devoted their time and talents to this fascinating pursuit! But there is no rule without an exception. Witness the recent publication of the 'Letters of Rusticus of Godalming,' under the able editorship of Mr. Newman. With much valuable matter relative to other branches of Natural History, this work contains by far the best account extant of those insects which are injurious to vegetation, and known by the name of "blight;" while the descriptions are not less remarkable for their accuracy than for their popular style and graphic power. Every farmer as well as naturalist ought to possess this interesting volume.

found in almost all parts of the county, but appears to be more abundant on those portions of the lower green-sandstone formation, in the western division, where the cultivation of the turnip obtains—as in the neighbourhood of Rogate, Midhurst, and Petworth — than elsewhere. They are numerous during certain seasons in even the most thickly-wooded parts of the weald, and appear equally partial to the arable land among the valleys of the Downs.

Two coveys of the red-legged partridge (*Perdix rufa*) were hatched and reared under domestic hens in July, 1841, and turned down on a manor in the parish of Kirdford, in the weald of Sussex. They were observed in the same neighbourhood for nearly a fortnight, after which they suddenly disappeared. During the following September a small covey was sprung near Bolney, about twenty miles farther west, and a brace shot. These were probably the remnant of the Kirdford birds instinctively performing the autumnal migration.*

I rejoice to say that this species is not indigenous to Sussex. Many a Norfolk and Suffolk sportsman has to suffer for the sins of his fathers,

* The Rev. J. Lubbock in his 'Fauna of Norfolk' considers the red-legged partridge a migratory bird even in some parts of that county.

who unwittingly introduced this foreign plague into their ancestral domains. Some portions of those counties are fortunately exempt from them, while in others they have increased to such a degree as to expel the old English or cinereous partridge, and being excessively wild and difficult to flush, they run before the dogs for miles, and severely test the patience and temper of the sportsman.

The quail (*Coturnix vulgaris*) is only an autumnal migratory visitor to Sussex. I never met with a bevy in any part of the county, although I have occasionally killed a few stragglers when partridge-shooting in September. In some districts of England they would appear to be comparatively numerous, and in Ireland I have found them abundant in the King's county during the winter. They appeared partial to backward oat-stubbles on poor swampy soils just verging on the borders of the great red bogs. After the first flight they generally lay well: the grand point was to drive them towards the bog, and if possible to scatter them over its surface. What capital sport they then afforded in combination with snipe, plover, teal, and wild ducks, the natural denizens of the swamp, which usually contributed to my bag on such occasions!

On certain portions of the downs of Sussex the pursuit of the partridge partakes almost of the

nature of grouse shooting. Nothing can be done without active and well broken dogs, experienced markers, and downright hard fagging.

Perhaps you commence operations by beating a large barley or oat-stubble—a sure find during the early morning—having previously placed a couple of markers on the hills on either side, so as to command a view over the main valley and the lesser combes. The partridges seldom lie well in the stubbles, but springing before the dogs can obtain a point, fly over the nearest brow, and drop either in a promising clover field, or perhaps in a “shaw”* higher up the hill. Two guns enjoy this sport to perfection. Separating at one end of the plantation, taking up the pointers, and putting a couple of steady old spaniels into the cover, the birds are frequently flushed one by one, and, as they spring screaming from the brushwood, fly rapidly forward, or dash hurriedly over the heads of either of the shooters.

Then, when some wild and almost unapproach-

* Shaw, (*Scua*, Saxon); a long narrow strip of wood or copse, suffered to remain as a fence, or division between two fields. On the richer soils, where the modern system of farming prevails, these primitive but beautiful fences are, I am sorry to say, being grubbed up every day, while in the greater portion of the weald they still exist, affording at once a harbour for game and the best shelter for cattle during stormy weather.

able covey, after having been patiently pursued from field to field, from brow to brow, yet never completely lost sight of, shall at last have been fairly worn out by the zeal and perseverance of the sportsman and his valuable coadjutors, the dogs and the markers, what a glorious half-hour commences! On such occasions the affrighted birds make for the summits of the Downs, and either drop among the beautiful groups of juniper bushes which stud the smooth surface of their steepest sides, or else "carry on" to the heathery and broken ground beyond, where you are well repaid for an up-hill pursuit of a mile or two by quartering the ground quietly with your setters, and, if you please, bagging the whole covey one after the other. You need have no qualms of conscience, no misgivings about hurting the breed for next year. There lies one of the greatest charms of partridge-shooting in this district. Many coveys are bred on the summits of the hills which never descend to the valleys, and which, on a preserved manor, such as I speak of, are of themselves sufficient to ensure an adequate supply for the shooter be he ever so keen and persevering. But without real work nothing is to be done. Many a knight of the trigger have I seen disgusted at what he called the scarcity of game on these Downs, the excessive wildness of

the coveys, and their interminable flights; and often have I seen others who fancied themselves rather "knowing" in such matters, but whose experience had been limited to the thick wheat-stubble and the prolific turnip-field, regularly "choked off" after the second or third hill had been surmounted, just perhaps as a marker, perched on the summit of a distant beech tree, was in the act of telegraphing the delightful fact that a covey had dropped among the junipers half a mile higher up.

And if you are a lover of the picturesque, what a magnificent scene is spread before you, as you pause for a moment from your successful toil, after having fairly run your game to ground on the heathery summit of one of these lofty Downs! The very air that you breathe, fresh from the altitude of the spot, and mingled, as it is, with the sea-breeze, is far more exhilarating than any artificial compound which your flask can furnish. Down after Down swells around you, their smooth sides dotted with the evergreen holly and juniper, or varied with larger patches of golden gorse, while the steep slopes which bound the intermediate valleys are clothed with hanging beech-woods, whose irregular forms relieve the undulating outline of the Downs, and the rich and varied tints of the autumnal foliage are blended

into that beautiful harmony of colours which Nature alone can combine.

Looking towards the south, the sea, although at the distance of several miles, is spread before you like a mirror, studded with coasting vessels and fishing smacks, and perhaps now and then an Indiaman, or ship of war beating up Channel for the Thames. On the extreme right is a cloud-like, but well-defined object standing out from the distant horizon. This is the Isle of Wight. In the middle distance the tall spire of Chichester cathedral shoots up from the plain, and the long, winding creeks and estuaries in its neighbourhood are all distinctly visible, as the rays of the sun are brightly reflected from their waters; while stretched below, between you and the sea, the flat cultivated tract, which extends from the south-western borders of the county as far as Brighton, spreads to the right and left, and as your eye wanders along the dark line of the coast, you may, if the weather be clear, take in, almost at one view, more than fifty miles of its extent, including the Isle of Wight on the west and the dimly-seen cliffs of Newhaven on the east.

Nothing is so fatal to the breed of partridges on the hills as a cold, wet spring and summer. These birds pair early, and the nest is frequently placed in a bleak and exposed situation. Here,

if the weather be unpropitious, numbers of eggs are sure to be addled or unproductive; while even those young birds that are successfully hatched are weakly, and many of them perish by constant exposure to damps and chills. Scarcity of water seems to have no injurious effect on the partridge, and much less than is generally supposed even on the pheasant, for there are no streams and but few sheep-ponds on this portion of the Downs. I have invariably found that whenever the months of April, May, June and July have been unusually dry, amounting even to drought, feathered game has been proportionably prolific and the numbers abundant during the ensuing shooting season. The morning and evening dews seem to afford sufficient moisture, and whatever inconveniences this excessive aridity may occasion them, they would appear to be comparatively trifling when we notice the fatal results of a cold, wet summer. This remark applies equally to other districts and soils. Experienced sportsmen, and octogenarian keepers who have wielded the protectoral bâton on the same manor half their lives, and actually grown grey in pheasant-lore, all agree that the drier the summer the better for the game.

I have said nothing of the battue and the crowded preserve. They are but little patronized in Sussex. There are of course a few exceptions,

but these only serve to prove the rule, and in point of massacre fall far short of an ordinary Norfolk performance.*

How different is the pursuit of the pheasant with the aid of spaniels in the thick covers of the weald, or tracking him with a single steady setter among some of the wilder portions of the forest range! — intently observing your dog, and anticipating the wily artifices of some old cock, with spurs as long as a dragoon's, who will sometimes lead you for a mile through bog, brake, fern and heather, before the sudden drop of your staunch companion, and a rigidity in all his limbs, satisfy you that you have at last compelled the bird to squat under that wide holly-bush, from whence you kick him up, and feel some little exultation as you bring him down with a snapshot, having only caught a glimpse of him through

* A friend of mine has favoured me with the following report of four consecutive days' work during last November, on a well-known manor in Norfolk. His brother, who was one of the party, furnished the bulletin.

					Head.
1st day	7 guns	...	...	...	564
2nd day	5 guns	(in an outlying cover)			187
3rd day	8 guns	...	...	...	738
4th day	6 guns	...	...	...	626
Total					2115

the evergreen boughs, as he endeavoured to escape by a rapid flight at the opposite side of the tree.

And then the woodcock-shooting in November—I must take you back once more to my favourite Downs. With the first full moon during that month, especially if the wind be easterly or the weather calm, arrive flights of woodcocks, which drop in the covers, and are dispersed among the bushy valleys, and even over the heathery summits of the hills. If it should happen to be a propitious year for beech-mast—the great attraction to pheasants on the Downs, as is the acorn in the weald—you may procure partridges, pheasants, hares, and rabbits in perhaps equal proportions, with half a dozen woodcocks to crown the bag.

The extensive, undulating commons and heaths dotted with broken patches of Scotch firs and holies on the ferruginous sand north of the Downs, afford—where the manorial rights are enforced—still greater variety of sport. On this wild ground, accompanied by my spaniels and an old retriever, and attended only by one man, to carry the game, I have enjoyed as good sport as mortal need desire on this side of the Tweed. Here is a rough sketch of a morning's work.

Commencing operations by walking across a turnip-field, two or three coveys spring wildly from the farther end, and fly, as I expect, to the adjoin-

ing common, where they are marked down on a brow thickly clothed with furze. Marching towards them with spaniels at heel, up jumps a hare under my nose, then another, then a rabbit. I reload rapidly, and on reaching the gorse "put in" the dogs. Whirr! there goes a partridge! The spaniels drop to the report of my gun, but the fluttering wings of the dying bird rouse two of his neighbours before I am ready, and away they fly, screaming loudly. The remainder are flushed in detail, and I succeed in securing the greater part of them. Now for the next covey. They were marked down in that little hollow where the heather is longer than usual — a beautiful spot! But before I reach it, up they all spring in an unexpected quarter; that cunning old patriarch at their head had cleverly called them together to a naked part of the hill, from whence he could observe my manœuvres, and a random shot sent after him with hearty good will proved totally ineffective.

Now the spaniels are worming through the thick sedges on either side of the brook which intersects the moor, and by their bustling anxiety it is easy to see that game is afoot. Keeping well in front of them, I am just in time for a satisfactory right and left at two cock pheasants, which they had hunted down to the very edge of the water before

they could persuade them to take wing. Now for that little alder coppice at the further end of the marshy swamp. Hark to that whipping sound, so different from the rush of the rising pheasant or the drumming flight of the partridge ! I cannot see the bird, but I know it is a woodcock. This must be one of his favourite haunts, for I perceive the tracks of his feet and the perforations of his bill in every direction on the black mud around. Mark ! again. A second is sprung, and as he flits between the naked alders a snap-shot stops his career. I now emerge at the farther end, just where the trees are thinner than elsewhere. A wisp of snipes utter their well known cry and scud over the heath ; one of these is secured. The rest fly towards a little pool of dark water lying at a considerable distance on the common, a well-known rendezvous for those birds. Cautiously approaching, down wind, I reach the margin. Up springs a snipe ; but just as my finger is on the trigger, and when too late to alter my intention, a duck and mallard rise from among the rushes and wheel round my head. One barrel is fortunately left, and the drake comes tumbling to the ground. Three or four pheasants, another couple of woodcocks, a few more snipes, a teal or two and half a dozen rabbits picked up at various intervals, complete the day's sport, and I return home, better

pleased with myself and my dogs than if we had compassed the destruction of all the hares in the county, or assisted at the immolation of a perfect hecatomb of pheasants.

A
SYSTEMATIC CATALOGUE
OF THE
BIRDS OF SUSSEX.

A SYSTEMATIC CATALOGUE, &c.

ORDER RAPTORES.—*Family* FALCONIDÆ.

GOLDEN EAGLE, *Aquila chrysaëtos*. Page 38.

WHITE-TAILED EAGLE, *Haliaëtus albicilla*.
Has occurred occasionally in the immature state.
Page 36.

OSPREY, *Pandion haliaëtus*. Specimens of this
bird have been obtained in different parts of the
county. Page 44.

PEREGRINE FALCON, *Falco peregrinus*. Breeds
in a lofty precipice at Beachy Head; also at
Newhaven cliff: is seldom seen in the weald.
Has been observed more frequently in other parts
of the interior, principally during the autumn and
winter. Page 106.

HOBBY, *Falco subbuteo*. A summer visitor.
Partial to wooded districts, where it generally oc-
cupies the deserted nest of a carrion crow. Sel-

dom found in the more open parts of the county.

Page 112.

MERLIN, *Falco Æsalon*. A winter visitor, but very partially distributed. Unlike the hobby, it prefers the exposed heaths and naked Downs to the weald. *Page 116.*

KESTREL, *Falco Tinnunculus*. But moderately dispersed during the breeding-season. Occasionally found among large woods, where it deposits its eggs in the old nest of a crow or magpie. Many may be observed at the same time of year along the line of chalk cliffs between Brighton and Beachy Head. They are still more plentiful farther eastward, between Hastings and Rye. As autumn approaches they gradually become more abundant in all parts of the county; congregate near the coast preparatory to their departure for a more southern region. Comparatively scarce during the winter. Re-appear about February in diminished numbers. *Page 51.*

SPARROWHAWK, *Accipiter nisus*. Common in wooded districts during the summer. The sexes separate in the winter. *Page 64.*

KITE, *Milvus vulgaris*. No longer indigenous to Sussex. Was formerly well known in the weald. Has occurred once near Brighton, and once at Siddlesham, within the last ten years.

COMMON BUZZARD, *Buteo vulgaris*. One of our most uncommon birds. Page 140.

ROUGH-LEGGED BUZZARD, *Buteo lagopus*. An accidental winter visitor to the south of England, but much less rare than the so-called common species. During very hard weather a sprinkling of these stragglers from the north is always found on our shores, either near the inlets of the sea south of Chichester, the marshy tracts of meadow land at the mouths of the navigable rivers, on Amberley flats, or on Lewes Levels. An example of this bird in my possession was trapped at Bosham, in January, 1839. It was disturbed in the act of devouring a rabbit which it had just killed, and a fragment of its prey being used as a bait, the poacher was secured on the following morning.

During that severe winter I examined four recent specimens of the rough-legged buzzard, all of which were obtained in the south-western part of the county, and I received intelligence that others had been shot about this time near Shoreham and Pevensey, and even on some of the wild commons in the interior, but I can record no instance of its having been observed among the great woods of the weald.

It has also occurred at Falmer, and at Ashburnham Park; and Mr. W. Borrer, of Cowfold, informs me that a specimen was killed at Henfield, on the

18th of October, 1841—an unusually early period for its arrival—in the act of seizing and carrying off a partridge which had just been shot.

HONEY BUZZARD, *Pernis apivorus*. An autumnal visitor. Has been met with in different parts of the county. *Page 136.*

MARSH HARRIER, *Circus æruginosus*. Of unusual occurrence in Sussex—even in localities well suited to its habits—especially in the adult state. *Page 89.*

HEN HARRIER, *Circus cyaneus*. Far more common than the last. Rare in the weald. Has been observed more frequently in the western than in the eastern division. *Page 90.*

MONTAGU'S HARRIER, *Circus Montagui*. Has been occasionally killed, both in the adult and immature state, in different parts of the county. *Page 89.*

Family STRIGIDÆ.

EAGLE OWL, *Bubo maximus*. Said by Mr. Yarrell and Mr. Jenyns—on the authority of Montagu—to have been shot in Sussex. I can record no second instance of its occurrence in the wild state. There has been for many years a magnificent living collection of eagle owls at Arundel Castle. Here, occupying the extensive area bounded by

the rock-like walls of the old Donjon keep, they exist in but partial captivity, and have lately even fulfilled the first law of Nature, "Increase and multiply." *Page 91.*

SCOPS-EARED OWL, *Scops Aldrovandi*. Has occurred once, near Shillinglee, the seat of Lord Winterton. *Page 94.*

LONG-EARED OWL, *Otus vulgaris*. Moderately distributed throughout the weald and in the neighbourhood of fir woods, but its numbers have decreased considerably of late years. *Page 93.*

SHORT-EARED OWL, *Otus brachyotos*. An autumnal or early winter visitor from the north. Is regarded as the harbinger of the woodcock. First appears on open heaths and commons, and in narrow plantations of Scotch or spruce fir. Soon afterwards met with in stubble and turnip-fields. *Page 94.*

BARN OWL, *Strix flammea*. Generally dispersed, but nowhere numerous. *Page 95.*

TAWNY OWL, *Syrnium aluco*. Now chiefly restricted to the great oak woods and parks furnished with hollow trees. May be frequently heard and seen at Cowdray. *Page 92.*

LITTLE OWL, *Noctua passerina*. In July, 1842, a bird of this species was exposed for sale at a poulterer's in the Brighton market. It was said to have been shot in an orchard at Sheffield Park,

near Fletching. Appeared to be immature, the plumage being much lighter than that of an adult specimen with which it was compared. Is now in the collection of Mr. W. Borrer, of Cowfold, by whom the above particulars were communicated to me.

ORDER INSESSORES.—*Tribe* DENTIROSTRES.

Family LANIADÆ.

GREAT GREY SHRIKE, *Lanius excubitor*. Has been occasionally observed and killed in different parts of the county. I have not been able to procure its nest or eggs, or to ascertain that it has ever been known to breed in Sussex. It has been obtained at Beeding Levels, Lindfield, Arundel, and Alderton; and two were shot near Battle during the winters of 1846-7.

RED-BACKED SHRIKE, *Lanius collurio*. Provincial, Cheater or Cheeter. A very local bird. Arrives early in May, and affects the whole line of coast between the Downs and the sea. Very numerous in the neighbourhood of Bognor and Chichester. Not infrequent in the eastern division, particularly in the maritime portion between Bexhill and Rye. Is seldom observed to the north of the Downs in the western division until

midsummer, and I have never been able to detect it on the clays, or among the great woods of the weald.

Family MUSCICAPIDÆ.

SPOTTED FLYCATCHER, *Muscicapa grisola*. Not so common as in many other counties. Seldom arrives until the latter end of May, but makes the most of its time, generally bringing up two families before it leaves us in the autumn. This occurred during three successive years in an apricot tree in my garden, to which a pair of these birds returned regularly every summer, until their retreat was at last discovered by a prowling cat; and the mother, her unfledged little ones, and the nest itself, were destroyed "at one fell swoop."

PIED FLYCATCHER, *Muscicapa atricapilla*. A very rare visitor from the north. A specimen was shot at Halnaker, in 1837, which is now in the Chichester Museum, another near Henfield, in May, 1845, which is in Mr. W. Borrer's collection; and a third example in the same year at Mousecombe, near Brighton, where it had been observed in a garden for some days before it was killed.

Family MERULIDÆ.

MISSEL THRUSH, *Turdus viscivorus*. Common in all parts of the county. Prefers small coppices and plantations in the vicinity of a house to great woods during the breeding-season. Such is the pugnacious disposition of this thrush that two nests are seldom found in the immediate neighbourhood of each other.

FIELDFARE, *Turdus pilaris*. A regular autumnal and winter visitor. In severe seasons is abundant in all parts of the county, but in open weather principally affects heaths and commons. I have known them detained by a backward spring as late as the 3rd of May, but I never could detect their arrival before the 1st of November. The supposed instances of their appearance before that time have originated in a mistake on the part of some observers who confounded this with the last-named species.

SONG THRUSH, *Turdus musicus*. Common everywhere.

REDWING, *Turdus iliacus*. Arrives rather sooner than the fieldfare. Is less difficult of approach in severe weather, but leaves us about the same time.

BLACKBIRD, *Turdus merula*. Abundant; especially among evergreens and fir plantations.

RING OUSEL, *Turdus torquatus*. A passing

visitor in spring and autumn; halting for a few days among the juniper and holly bushes on our elevated commons and highest Downs.

GOLDEN ORIOLE, *Oriolus galbula*. A summer straggler of rare occurrence. Has been twice killed in the month of May, near Newhaven; and two examples are in the possession of Mr. W. Borrer, which were shot at Alfriston, about four miles from the last-named port, so that there seems to be something peculiarly attractive to this bird in that neighbourhood.

Family SYLVIADÆ.

HEDGE ACCENTOR or HEDGE SPARROW, *Accentor modularis*. Common everywhere.

REDBREAST or ROBIN, *Erythaca rubecula*. As elsewhere, a well-known and general favourite.

REDSTART or FIRETAIL, *Phænicura ruticilla*. The very partial distribution of this bird is remarkable. I never could discover it in any part of the weald of West Sussex. It is even exceedingly rare to the south of that region on the richer soil of the lower green sandstone, in the neighbourhood of Midhurst, Petworth and Pulborough, to the north of the Rother, which is here a tributary to the Arun: but on the long belt of ferruginous sand to the south of that stream it is of frequent occurrence, particularly in the neighbourhood of Stor-

rington, Parham and Steyning, and again at Henfield. It is common on the alluvial tract to the south of the Downs between Chichester and Brighton, is not unusual in the neighbourhood of Bexhill, St. Leonard's and Hastings, but is only sparingly scattered over the forest range in the eastern division of the county.

BLACK REDSTART, *Phænicura tithys*. This species seems to be a winter visitor to Sussex. It has occurred near Hastings and Chichester, but more frequently at Brighton than elsewhere. Of these the greater number have been killed on or near a large permanent heap of rubbish at Hove, which would appear to possess some mysterious charm for these birds. On the 5th of December, 1839, a female was killed there, and another on the 30th. On the 9th of March, 1840, a male was obtained on the same spot, and another in 1842. During the winter of 1847 two were shot in that neighbourhood by Mr. Swaysland, which I saw soon afterwards.

On the 16th of October, 1839, a male was killed in Oriental Place, and in January, 1848, a female was caught alive in a greenhouse near the German Spa; a specimen was also captured in a garden near the western road, in a nightingale-trap baited with a worm. All these examples were in full plumage and good condition.

STONECHAT or Furzechat, *Saxicola rubicola*. Very common on open heaths and gorse-covered commons. Several remain with us during the winter.

WHINCHAT, *Saxicola rubetra*. Provincial, Barley-ear. Arrives during the early part of April if the season be favourable. Haunts and habits similar to those of the last species.

WHEATEAR, *Saxicola œnanthe*. Numbers arrive in March, but the greater portion of these proceed farther north; comparatively few remaining here during the breeding-season. Immense flocks appear on the Downs during the early part of August, at the period of the autumnal migration, and quantities are taken by the shepherds in snares of a very simple description, formed by slight excavations in the turf, and horse-hair nooses. The instinct of this bird prompts it, on the slightest alarm, to run for concealment to the nearest hole. The observant shepherd, availing himself of this habit, constructed his infallible trap; for a full and accurate account of which, and of the capture of these birds on the Sussex Downs between Eastbourne and Beachy Head, the reader is referred to Mr. Yarrell's 'History of British Birds,' vol. i. p. 256.

GRASSHOPPER WARBLER, *Salicaria locustella*. Is very partially distributed, being rare even in some

districts which would appear well suited to its habits. I have explored many acres of furze and extensive commons in the weald, without being able to detect its presence by sound or sight. It is very rare in the neighbourhood of Brighton and Hastings, but has frequently been obtained near Chichester. I know one heathy common about a mile from Petworth, interspersed with patches of thorn and gorse, where several pairs of these birds may be heard every summer; but although my patience has often been rewarded by occasional glimpses of the little feathered chirpers as they crept, mouse-like, among the stalks of the furze and fern, I never succeeded in discovering their nest or eggs.

SEDGE WARBLER, *Salicaria phragmitis*. Common where low drains with sedgy banks, or brooks bordered with thick bushes occur, or wherever moist and damp situations encourage a profusion of aquatic herbage.

REED WARBLER, *Salicaria arundinacea*. Partially distributed, and everywhere less numerous than the last-named species. Was formerly of frequent occurrence on Pevensy Levels, but since the clearing out of many of the reed beds, has almost disappeared from that neighbourhood. The same cause has reduced its numbers at Amberley, and in most of its favourite haunts. These

birds and their beautiful nests may, however, still be found during the month of May in the reedy ditches a little to the westward of the old wooden bridge on the Adur, about a mile above Shoreham.

NIGHTINGALE, *Philomela lusciniæ*. Abundant during the summer in woods, copses and hedges, but perhaps more numerous on the clay soils of the weald than anywhere else. In this—as an insectivorous bird—it forms an exception to a general rule; every other species of the dentirotal tribe, resident as well as migratory, being, comparatively, but sparingly distributed in that district.

BLACKCAP, *Curruca atricapilla*. Found in thickets and groves during the summer, but not plentiful anywhere. Rare in the weald.

GARDEN WARBLER, *Curruca hortensis*. In its habits and haunts resembles the last species, but is certainly of less frequent occurrence.

COMMON WHITETHROAT, *Curruca cinerea*. Common.

LESSER WHITETHROAT, *Curruca sylvicola*. In the neighbourhood of Chichester, Bognor, Pagham and Worthing, this bird is as numerous as the last species, and appears even more so; its garrulous song and bustling flight at once attracting observation. It is less frequent to the north of the

Downs, and seldom seen in the weald, where *Curruca cinerea* is by no means of rare occurrence.

WOOD WARBLER, *Sylvia sylvicola*. A very local species. I never could obtain a specimen among the oak woods on the clay soils. Appears to be equally rare near Petworth, but particularly affects the neighbourhood of Storrington, and the tall elm trees in Parham Park, from whence I have procured several examples. It is scarce in the central parts of the county, and indeed seems to prefer dry gravelly soils, where the beech and elm are more prevalent than the oak. The eggs and nest have frequently been found in Stanmer Park, the latter being remarkable for the total absence of feathers, as a material in the lining of the interior, which are always applied to that purpose by its congeners the chiff-chaff and the willow wren.

CHIFF-CHAFF, *Sylvia hippolais*. Is partially dispersed, being of rare occurrence in certain districts—as for instance in the neighbourhood of Shoreham and Beeding, while in others every bush and copse rings with his merry note.

WILLOW WARBLER, *Sylvia trochilus*. Is more numerous and generally distributed, although from its retired habits and subdued warble, less likely to attract notice. These three last-named birds, which now form the restricted genus *Sylvia*, strongly resemble each other, especially the two

latter. The hue of the legs, however, forms the best distinction. That of the chiff-chaff's being of a dark brown, and the willow warbler's of a pale flesh colour; while the wood warbler differs from both in having the upper plumage of a brighter green, the under parts of a purer white, a distinct yellow streak over each eye, the tail rather shorter, and the wings longer in proportion.

DARTFORD WARBLER, *Melizophilus Dartfordiensis*. Very scarce. Has been obtained by Mr. Ferryman among some patches of furze near the Devil's Dyke. A specimen was shot on the 3rd of May, 1844, on "the Broyl," near Chichester. I have carefully watched for this little bird when the fox-hounds have been drawing the great gorse covers, but could never succeed in detecting it.

GOLDEN-CRESTED REGULUS, or GOLDEN-CRESTED WREN, *Regulus cristatus*. Common.

FIRE-CRESTED REGULUS, *Regulus ignicapillus*. It would be well that this rare species should be known by some other name. If it is supposed to imply a superior vividness of the bright yellow colour, the bird has no higher claim to the title than its congener the gold-crest; but the worst of it is that many persons unacquainted with the most striking distinction between these closely allied species, understood it in this sense, and imagine the adult male of the common golden-crested wren

to be the fire-king, and the female and immature birds gold-crests. I have had several examples of the former shown to me by collectors who were labouring under this delusion. The most simple and obvious distinction consists in the three longitudinal lines on the cheeks of *R. ignicapillus*, which are absent in *R. cristatus*. Of these, one is black, in which the eye is situated, above and beneath which passes a streak of white.

No doubt this bird frequently escapes observation from its near resemblance to its congener. On the 3rd of October, 1843, an example was picked up dead in a garden at Brighton. Another was shot at Uckfield in October, 1847; and a third, which is in my own collection, was killed during the same month near Shoreham.

Family PARIDÆ.

GREAT TIT, *Parus major*. Common in every part of the county.

BLUE TIT, *Parus cæruleus*. Generally dispersed.

COLE TIT, *Parus ater*. Rare in some localities, but comparatively numerous in others which do not seem better suited to its habits. Is of frequent occurrence in the neighbourhood of Chichester. Rather scarce about Hastings, and by no means common among the great woods of the weald. As there is a general resemblance between the tit-

mouse and the next species, it may be well to notice an easy method of distinguishing them. The cole tit has a white spot on the nape of the neck which is absent in the marsh tit.

MARSH TIT, *Parus palustris*. This seems also to be a local species. It does not, as far as my observation goes, evince any partiality for swampy ground or the neighbourhood of marshes. On the contrary, I have found it more numerous among the large woods that crown the higher portion of the lower green-sandstone formation, where its northern escarpment abuts on the valley of the weald, than perhaps anywhere else; as at Henley Hill, Bexley Hill, Petshill, Flexham Park and Bedham. It is also common in Ashdown and Tilgate forests.

LONG-TAILED TIT, *Parus caudatus*. Generally distributed. Abundant among the oak woods of the weald. The young, when able to fly, accompany their parents, and wandering family parties of from ten to twelve of these social birds may frequently be noticed throughout the winter, flitting from tree to tree, uttering their faint indistinct note, as they climb among the branches and explore the lichens for minute insects, or curiously pry into the crannies of the rough bark.

BEARDED TIT, *Calamophilus biarmicus*. Occasionally found in situations adapted to its habits,

but is decidedly less numerous in Sussex than many other counties nearer the metropolis. Was formerly not unusual in the neighbourhood of Pevensey, but is now rare, most of the reed-beds having been removed to admit of the water running freely through the dykes.

A male and female in my collection were obtained near the ruins of Amberley Castle. A pair were also shot at Fishbourne, near Chichester, by a retired military serjeant of the name of Carter; a very successful gunner, who has had the good fortune to meet with some of our rarest birds in that neighbourhood.

Family AMPELIDÆ.

BOHEMIAN WAX-WING, or Chatterer. *Bombycilla garrula*. Of rare occurrence in Sussex, and only during very severe snow and frost. In January, 1848, two of these birds were shot in a garden at Newtimber, feeding on the berries of a red haw tree—a variety of the whitethorn which produces pink or apple-like blossoms and unusually large fruit—one of these is in my own cabinet. A few years since a chatterer was killed at Beeding, one at Newhaven, and another near Shoreham by a person of the name of Dyer. There is also a specimen in the Chichester museum which was shot in that neighbourhood.

Family MOTACILLIDÆ.

WHITE WAGTAIL, *Motacilla alba*. An occasional summer visitor, but from its close resemblance to the pied wagtail, frequently escapes notice. Mr. Yarrell has enumerated some of their distinctive characters; the most striking of which, however, is the *permanent* pearl grey or light ash grey of the whole of the back in the white wagtail, *including the upper tail coverts*, which in the pied wagtail are invariably dark.

PIED WAGTAIL, *Motacilla Yarrelli*. Page 81.

GREY WAGTAIL, *Motacilla boarula*. A regular winter visitor, but very partially distributed. Frequents the borders of the clear rivulets on the sandstone formation, and in the vicinity of the Downs. Is very rare in the weald. Departs for the North at an early period of the spring. I once observed a pair of these birds near Woolbeding on the 28th of April. The male had partly assumed the black plumage on the throat which is characteristic of the breeding-season. After a patient observation and diligent search, I was unable to discover a nest, or even symptoms of nidification. On revisiting the spot a few days afterwards both birds had disappeared.

RAY'S WAGTAIL, *Motacilla flava*. Yellow wagtail — Provincial, Barley-bird. Known by the

latter name in the neighbourhood of Brighton, from its arrival being usually coincident with the spring sowing of that grain.

Family ANTHIDÆ.

TREE PIPIT, *Anthus arboreus*. Styled by the Brighton birdcatchers "Real Titlark" to distinguish it from the next species. Is very numerous at the period of the autumnal migration. *Page 77.*

MEADOW PIPIT or Titlark, *Anthus pratensis*. *Page 77.*

ROCK PIPIT or Rock Lark, *Anthus petrosus*. Although restricted to the immediate neighbourhood of the shore, and far from numerous, this pipit may be observed on various parts of our coast, and is perhaps as plentiful about Shoreham, on the low swampy grounds between the high road and the sea, as anywhere. I have found its nest near Aldwick and Pagham, among the long rank grass which clothes the steep banks of the mud walls, that have been erected to check the return of the sea among the reclaimed meadows; and I once discovered it in a hollow on the face of a chalk cliff near Rottingdean, a few feet from the ground. The lower portion of this nest was composed of sea-weed.

Family ALAUDIDÆ.

SKY LARK, *Alauda arvensis*. Page 126.

WOOD LARK, *Alauda arborea*. Abundant in the weald, but less numerous in other parts of the county. Rarely seen on the Downs. Appears to be more susceptible of cold than the sky lark. During severe frost vast numbers congregate on the coast, and are then easily killed.

CRESTED LARK, *Alauda cristata*. Mr. Yarrell, in the second edition of his 'British Birds,' records an instance of this lark having been killed in Sussex.

Family EMBERIZIDÆ.

LAPLAND BUNTING, *Plectrophanes Lapponica*. Of this rare visitor from the North very few examples have occurred in the British Islands, and three of these in the neighbourhood of Brighton. The first was prior to the year 1828, and is recorded by Mr. Jenyns as the second specimen taken in England. The second, which is in the collection of Mr. W. Borrer, was captured in a lark-net in October, 1846. The third was shot in November, 1848, near the toll-gate at Rottingdean. He sent it to Mr. Swaysland with some snow buntings, of which species he supposed

it to be. I saw and obtained this specimen immediately afterwards.

SNOW BUNTING, Snowflake or Tawny Bunting, *Plectrophanes nivalis*. An occasional winter visitor to the Downs. Not unfrequently taken with larks during hard weather, but then generally presenting the plumage of the tawny or immature bird. Out of nearly forty which were captured by one birdcatcher during a single winter — 1847-48 — only two had the white head, which is characteristic of the adult snow bunting.

COMMON BUNTING, *Emberiza miliaria*. Provincial, Clod bird. Common in open cultivated districts. Less frequent on the Downs, and very rare in the weald. Plentiful in the neighbourhood of Brighton and Worthing. Its local name would appear to be derived from its habit of perching on a projecting clod of turf or clay in a stubble or fallow field, while it utters its harsh monotonous note.

BLACK-HEADED BUNTING or Reed Sparrow, *Emberiza schoeniclus*. Peculiar to marshy tracts and sedgy swamps.

YELLOW BUNTING or Yellow Hammer, *Emberiza citrinella*. Generally dispersed.

CIRL BUNTING, *Emberiza cirrus*. A very local bird, affecting the neighbourhood of the coast, but

seldom venturing many miles into the interior. Common during the breeding-season in the neighbourhood of Chichester, Bognor, Worthing, and Brighton, but not met with on the northern side of the Downs of West Sussex. I have found its nest in tall quickset hedges. It has been discovered in the strawberry gardens at Preston near Brighton, and in Stanmer Park. The nidification of the ciril bunting is somewhat later than that of the yellow hammer, seldom taking place until May. In winter they are gregarious, and according to my own observation they do not congregate with other birds. In February, 1838, when residing at Aldwick, near Bognor, I noticed a small flock close to a newly cut hayrick, during the prevalence of a cold easterly wind. I shot two, a male and a female, and found their stomachs filled with hay-seeds. The next day the weather was mild and the remainder departed. Then succeeded a piercing north-easter, and they reappeared in increased numbers at the rick, but the scanty supply of their favourite food was soon exhausted or blown away; so I caused the loft to be swept, and scattered a few handfuls every morning at the foot of the stack. This had the desired effect: the birds remained with me until the return of mild weather about a week

afterwards; and although a few chaffinches and yellow hammers—uninvited guests—occasionally obtruded on their little party, yet the ciril buntings seemed to avoid mingling with them, were far more tame and confiding, and at last almost disregarded my presence.

ORTOLAN BUNTING, *Emberiza hortulana*. Only two examples of this bunting have been obtained in Sussex—as far as I can learn. The first, which is in the possession of Mr. W. Borrer, was shot on the viaduct of the Brighton Railway, near the terminus. The second, an immature male, was killed together with some yellow hammers near Shoreham, and is in my own collection.

Family FRINGILLIDÆ.

CHAFFINCH, *Fringilla cælebs*. Common. I have not observed that separation of the sexes, at any period of the year, which some authors have noticed in other parts of England.

MOUNTAIN FINCH, *Fringilla montifringilla*. An autumnal visitor, remaining during the winter and leaving us again in the spring. Several are captured on the Downs by lark-netters. Abundant during protracted snow and frost.

TREE SPARROW or Mountain Sparrow, *Passer montanus*. A scarce bird in Sussex, but in all

probability has frequently escaped observation from its general resemblance to the common sparrow, from which, however, its smaller size, and the chocolate-coloured head of the male may serve to distinguish it. It is here a winter visitor, arriving in October and usually departing in April. Although I have not been able to discover the nest, yet I have reason to believe that a few of these birds remain with us during the breeding-season, as I have received examples, recently killed, in May and June. In the neighbourhood of Brighton it is frequently taken by birdcatchers during the autumn, in company with linnets and redpoles. It has also been captured in old ivy-covered walls along with common sparrows, and it has been detected among bunches of the latter species which have been exposed for sale in the market.

HOUSE SPARROW, *Passer domesticus*. Abundant everywhere.

GREENFINCH, *Coccothraustes chloris*. Generally distributed, but less common in the weald than elsewhere. Migrates in the autumn. Page 78.

HAWFINCH, *Coccothraustes vulgaris*. Of uncertain occurrence, being not unusual during some years, and comparatively rare in others. Is generally observed about autumn, when haws, cherries and stone-fruit are in season. Bred in Stanmer Park during the summer of 1847. The young

birds, after they had left the nest, frequented the neighbourhood of the gardener's cottage, and were all caught by his children in brick traps baited with peas: these juvenile observers having noticed that several pods of that vegetable had been previously shelled by the hawfinches.

GOLDFINCH, *Carduelis elegans*. Page 79.

SISKIN, *Carduelis spinus*. Arrives in the autumn. I have frequently noticed it at that season feeding on the seeds of the alder in company with the lesser redpole. Congregates, during severe weather, with linnets and greenfinches. Departs for the North in the early spring.

COMMON LINNET, *Linota cannabina*. Common.

MEALY REDPOLE, *Linota canescens*. Provincial, Stone Redpole. Appears to have decreased considerably of late years. Was common in the neighbourhood of Brighton, and especially on Poynings Common, during one season about fifteen years ago. Has been comparatively scarce ever since. A few, however, are taken every year by professional birdcatchers. Mr. Yarrell has very clearly pointed out the specific distinctions between this bird and the lesser redpole, of which it was formerly supposed to be merely a variety.

LESSER REDPOLE, *Linota linaria*. } Both winter

TWITE, *Linota montium*. } visitors, retiring northwards on the approach of spring.

Partial to the Downs and open country. Rare in the weald.

BULLFINCH, *Pyrrhula vulgaris*. Generally dispersed.

PINE GROSBEAK, *Pyrrhula enucleator*. I can record but two instances of the occurrence of this rare bird in Sussex. An example was shot a few years ago near Cotes House, about three miles from Petworth, while feeding on the seeds of a pinaster, by a gentleman of the name of Mellersh, who, being well acquainted with British birds, at once recognized the species. In February, 1848, two were killed at the same time in Ashdown Forest. One of them, which I saw, was an adult male.

COMMON CROSSBILL, *Loxia curvirostra*. An accidental visitor. In the autumn of 1835 great numbers of these birds were observed in most of the pine woods and larch plantations of Sussex. They were abundant during that year at Salt Hill, near Chichester, and in the neighbourhood of Midhurst and Parham. Like the hawfinch, the crossbill is very uncertain and irregular in its appearance.

Family STURNIDÆ.

COMMON STARLING, *Sturnus vulgaris*. Abundant.

ROSE-COLOURED PASTOR, *Pastor roseus*. A very

rare straggler. I understand that it has been shot once in the eastern division of the county, but cannot ascertain the precise locality. I know of two instances of its occurrence in West Sussex. The first was killed at Mundham, near Chichester, in 1836. The second at Selsey in 1838. The stomach of the latter contained a great quantity of the larvæ of coleopterous insects.

Family CORVIDÆ.

CHOUGH, *Fregilus graculus*. Late writers on British Ornithology speak of this bird as a denizen of the cliffs of Beachy Head. I regret to say that it is to be found there no longer. This was certainly its last stronghold, but it disappeared from the coast about twenty years ago. I have frequently examined the entire line of cliffs between Brighton and Eastbourne, but could never—even with the assistance of a spy-glass—discover one, or procure a recent specimen in any part of Sussex.

RAVEN, *Corvus corax*. Page 147.

CARRION CROW, *Corvus corone*. Page 97.

HOODED CROW, *Corvus cornix*. Page 100.

ROOK, *Corvus frugilegus*. Abundant.

JACKDAW, *Corvus monedula*. Plentiful. Page 151.

MAGPIE, *Pica caudata*. Frequents extensive

woods and fir plantations during the breeding-season; and congregates, in small parties, on the Downs and in open parts of the county during the winter.

JAY, *Garrulus glandarius*. This beautiful bird may still be found in all our great woods, notwithstanding his persecution at the hands of the keeper. In parts of the weald where the preservation of game is not attended to, the species is even numerous, and their harsh, wild cry continually greets you, as you wander among the oak forests of that region.

NUTCRACKER, *Nucifraga caryocatactes*. I have seen a specimen of this rare wanderer which was shot at Alfriston by Mr. Newman, a gentleman residing in that neighbourhood.

Tribe SCANSORES.—Family PICIDÆ.

GREEN WOODPECKER, *Picus viridis*. Provincial, Yaffle. Has decreased of late years, but is still far from uncommon, particularly in the weald.

GREAT SPOTTED WOODPECKER, *Picus major*. Provincial, French Woodpecker. Scarcer than the last, but specimens are procured almost every year, either in the adult or immature state.

LESSER SPOTTED WOODPECKER, *Picus minor*. Provincial, Little French Woodpecker. By far the rarest of the three species. A male was shot in

1844 at Arundel; another at Albourne in December in 1848; and one was captured at Parham House, which had flown into a room through the open window. It has also been killed near Chichester, and occasionally in the eastern division of the county.

WRYNECK, *Yunx torquilla*. Provincial, Rinding Bird. One of the few local epithets worth recording.* So termed in many parts of Sussex

* I confess that I do not attach so much importance to provincial nomenclature as it would appear to possess in the eyes of some persons. The local names in this Catalogue are but few: they have been culled from a heterogeneous mass which had accumulated in my note-books, and which might be supposed to have originated in the Tower of Babel. I have noticed only such as appeared to be expressive of some quality, or property of, or circumstance relating to the birds themselves — such as “the barley bird,” “the rinding bird,” “the parson gull,” “the duck-hawk,” &c. — or those which, seeming sufficiently established by general usage in their respective districts to have superseded the ordinary and recognized names, might therefore be practically useful to the collector in his enquiries amongst the natives. But as a general rule, I am strongly of opinion that these provincial names ought to be discarded from all works on Natural History. Most of them are quite inappropriate, others devoid of point or meaning, and while in one order of birds the same silly nickname is frequently applied indiscriminately to every individual in a family, in another we find a single species honoured with as many

from its appearance in the spring being supposed to indicate the proper time for felling the oak trees and removing the bark or rind from the trunks and branches, an employment in which a considerable portion of the agricultural population of the weald and other woodland parts of the county are engaged at this period of the year. The operation of "rinding" cannot be attempted until the sap has begun to flow. Then myriads of minute in-

titles as a German Prince, the signification of which—when indeed they signify anything—is frequently derived from some imaginary attribute or peculiarity.

The object of our researches, and of all communications on this and kindred subjects, ought to be to discover truth, not to propagate error; to diffuse science, not to disseminate barbarism; and so far from encouraging the country people in retaining their incomprehensible misnomers, we should take every opportunity of setting them right, pointing out the salient differences of species, and fixing the proper English names in their minds. We might often derive much useful and valuable information from such people as fishermen, shepherds, woodmen, and gamekeepers, which will be either lost to us, or rendered worse than useless, if we are constantly in danger of being misled by gross confusion of names; and this confusion would be even worse confounded, if the usual designations, accepted and established by competent authority, should be misapplied to other species than those to which such authority has assigned them.

sects, which have hibernated in the deepest recesses of the bark, are roused from their winter's sleep, and move nearer to the surface. These now constitute the principal food of the wryneck, who immediately on his arrival sets seriously to work, and with his long elastic tongue extracts them rapidly from the crevices. His monotonous, hawk-like cry is anxiously expected by the woodman at this season.

Family CERTHIADÆ.

COMMON CREEPER, *Certhia familiaris*. Generally distributed.

WREN, *Troglodytes Europæus*. Abundant.

HOOPOE, *Upupa epops*. Has been killed in different parts of Sussex, generally near, or within a few miles of the coast; and two instances are on record of these birds having built their nest and reared their young in the county. One of these is mentioned by Mr. Yarrell, and the fact is still remembered in the neighbourhood of Chichester. The other occurred a few years ago at Southwick, near Shoreham, where a pair of hoo-poes and their young ones were discovered in an old hollow tree. The latter lived for some time in the possession of Mr. Waring Kidd, of Brighton. In September, 1839, I shot a female of this species near the beach between Pagham and

Selsey, on the borders of a coppice of stunted oak trees. An adult male was killed soon afterwards at Itchenor by Mr. Gibbs. I have seen an example which was procured at Fishbourne. On the 19th of April, 1840, a hoopoe was shot near Rottingdean; and another on the 11th of September in the same year at Ovingdean, near Worthing; it has occurred in two or three instances at Alfriston, and it has also been obtained occasionally, but rarely, in some parts of the interior.

NUTHATCH, *Sitta Europæa*. Generally dispersed, but not numerous anywhere. Although some remain with us during winter, their numbers are reinforced by visitors from the continent every spring.

Family CUCULIDÆ.

COMMON CUCKOO, *Cuculus canorus*. May be heard in all parts of the country after his arrival in April.

Tribe FISSIROSTRES.—Family MEROPIDÆ.

ROLLER, *Coracias garrula*. This scarce and beautiful bird has been killed occasionally in Sussex. An example was shot by Mr. Tomsett, of Alfriston, in that neighbourhood; and another in July, 1843, on Chinton Farm, near the sea at

Cuckmere haven, by a person in the employment of Mr. Scott, of Littlington, near Lewes.

BEE-EATER, *Merops apiaster*. A specimen of this rare straggler was shot by serjeant Carter near Chichester on the 6th of May, 1829.

Family HALCYONIDÆ.

KINGFISHER, *Alcedo ispida*. Breeds in deep holes, on the steep banks of some of the clear streams on the sandstone formation. Is very rare during that season in the weald, where the waters are generally turbid. Frequents salt marshes near the coast in the winter.

Family HIRUNDINIDÆ.

SWALLOW, *Hirundo rustica*. Abundant.

MARTIN, *Hirundo urbica*. Equally so.

SAND MARTIN, *Hirundo riparia*. Almost unknown in the weald of West Sussex, but common to the south of that district. Most of the large sandpits in the county are honeycombed by colonies of these birds. It is rare among the Downs, and of unusual occurrence on the maritime tract between them and the sea.

COMMON SWIFT, *Cypselus apus*. Provincial, Screecher. Abundant. Arrives about the 1st of May, and leaves us about the middle of August.

Family CAPRIMULGIDÆ.

NIGHTJAR or FERN OWL, *Caprimulgus Europæus*. Partially distributed, being very common during summer in the weald, as well as on open heaths and gorse-covered commons, but of rare occurrence in more cultivated and populous parts of the county.

Order RASORES.—*Family* COLUMBIDÆ.

RING-DOVE, *Columba palumbus*. Common. Congregates in great flocks during the autumn. Is very partial to acorns and beech-mast.

STOCK DOVE, *Columba ænas*. I have found small parties of these pigeons in the autumn and winter, among the wooded valleys of the Downs. During summer they are not seen in flocks. They breed in the hollow trunks of some of the old oak trees. I have discovered their nest and eggs in such situations at Cowdray and Petworth.

TURTLE DOVE, *Columba turtur*. A summer visitor, arriving in May. Abundant in the oak woods of the weald. Rare in open parts of the county at the same season. On the approach of autumn they frequent fields of rape. After these have been cut or "fed off," their partiality to salt prompts them to haunt the sea-shore. They may then be observed in great numbers on the muddy banks

near the mouth of Shoreham harbour, and in similar situations along the coast.

Family PHASIANIDÆ.

COMMON PHEASANT, *Phasianus Colchicus*.
Page 163.

Family TETRAONIDÆ.

BLACK GROUSE, *Tetrao tetrix*. Page 162.

COMMON PARTRIDGE, *Perdix cinerea*. Page
167.

RED-LEGGED PARTRIDGE, *Perdix rufa*. Page
168.

COMMON QUAIL, *Coturnix vulgaris*. Page 169.

Family STRUTHIONIDÆ.

LITTLE BUSTARD, *Otis tetrax*. On the authority of Mr. Jenyns I give the little bustard a place in this Catalogue. Vide 'Manual of British Vertebrate Animals,' p. 176.

NOTE.—The Great Bustard, *Otis tarda*. Markwick says that the great bustard used to be seen on the South Downs in his time. White of Selborne also observed it there. The latest instance of its having been observed in Sussex appears to be that of a single example, which was occasionally seen about twenty-five years ago near Blatchington by Mr. Catt, who then occupied that farm. It used to frequent the flat table-land which runs for a considerable

Order GRALLATORES.—Family CHARADRIIDÆ.

GREAT PLOVER, *Ædicnemus crepitans*. This bird is known by at least half-a-dozen different names in Sussex. In some localities it has usurped the title of the last-named species, and is confidently termed “the little bustard.” This is unfortunate.

GOLDEN PLOVER, *Charadrius pluvialis*. Not unfrequent during winter, particularly near the coast.

DOTTEREL, *Charadrius morinellus*. Arrives about the end of April, on certain portions of the Downs between Brighton and Beachy Head. Several are killed every year in the neighbourhood of Alfriston. Is seen frequently near Hailsham and Battle. Rare in the western division of the county. The line of its vernal migration would seem to be North-west. Does not breed in Sussex. Reappears in September on its return to the south.

RINGED PLOVER, *Charadrius hiaticula*. Provincial, Stone Runner. Common along the coast

distance in the direction of the Dyke. I have met with many old people, who, in their younger days, have seen flocks of these noble birds on the Downs.

during the entire year. Their numbers increase in the spring, although not so palpably as those of the dunlins and other *Scolopacidae*.

KENTISH PLOVER, *Charadrius Cantianus*. This bird strongly resembles the last, but its body is smaller, and its legs much longer. The plumage is also of a lighter colour. Several arrive for the breeding-season on Rye Marsh, and on the shores of Pevensey Bay. Their eggs and young are frequently found on the coasts of East Sussex, but they migrate southwards in the winter. They do not congregate with their congeners, the ringed plovers, but are generally observed either alone or in pairs. I have never been able to discover it westward of Brighton, but Mr. Gould says that it has been killed at Selsey, near Pagham. In the museum of the Mechanics' Institute at Hastings are several specimens, adult and immature, which have been procured in that neighbourhood.

LITTLE RINGED PLOVER, *Charadrius minor*. Has been obtained on two or three occasions in Sussex. The specimen from which Mr. Gould took his description was killed at Shoreham, and there is another in Mr. W. Borrer's collection, which was shot in the same neighbourhood during the month of May.

GREY PLOVER, *Squatarola cinerea*. A winter visitor of by no means ordinary occurrence, except

during severe weather. Specimens killed in this county generally present the usual grey plumage, in which state I have met with this bird at Pagham harbour. I have received an example shot in March, near Chichester, which had already assumed several black feathers on the breast.

PEEWIT, *Vanellus cristatus*. Numerous on waste lands and heathy commons during the breeding-season. Congregate in the autumn and winter, and appear partial to ploughed fields.

TURNSTONE, *Streptilas interpres*. Rather a scarce bird. I have met with it occasionally on different parts of the coast.

SANDERLING, *Calidris arenaria*. Not uncommon in the winter, when the upper plumage is of a very light grey colour and the lower white. It has been killed occasionally, but rarely, during the summer: its appearance is then nearly similar to that of the dunlin: it may, however, always be distinguished from that bird by its shorter beak, and by the absence of the hind toe.

OYSTER-CATCHER OR OLIVE, *Hematopus ostralegus*. Is observed on the coast, late in March or early in April, either singly or in small parties of two or three. They seem to pass westward, remaining with us only about a week or a fortnight. In September, however, they reappear, accompanied by the birds of the year. As many as thirty

have been seen together at this season near Shoreham.

Family ARDEIDÆ.

COMMON HERON, *Ardea cinerea*. Page 14. Besides the heronry at Parham, there is also a smaller colony near Hurstmoncieux, on the property of Mr. Curteis, M.P.

PURPLE HERON, *Ardea purpurea*. An example of this rare heron was shot on the 28th of September, 1848, at Worthing, by a gentleman of the name of Paul. It was preserved by Mr. Andrews of that town, and is now in the museum of the Cambridge Philosophical Society.

LITTLE BITTERN, *Botaurus minutus*. An adult male specimen of this scarce British bird was killed at Pulborough in May, 1842, on the banks of a pond abounding in aquatic plants, in the garden of the Rev. J. Austin, the rector of that parish, who kindly presented it to me. To this gentleman I am indebted for many valuable ornithological acquisitions procured in his immediate neighbourhood.

COMMON BITTERN, *Botaurus stellaris*. Of less frequent occurrence than formerly. Is sometimes met with among tall reeds on the banks of large ponds and in sedgy swamps, but from the size and remarkable appearance of the bird, when on the

wing, there is little chance, now-a-days, of its remaining for any length of time undiscovered or unmolested. I have seen the bittern flushed from the reed-beds at the upper pond in Burton Park.

NIGHT HERON, *Nycticorax Gardeni*. Has been shot on two or three occasions in Sussex. Mr. W. Borrer informed me that he examined a recent specimen, which was killed near Alfriston, in November, 1839—a bird of the year. Since that period another example has occurred near Cuckmere Haven.

WHITE SPOONBILL, *Platalea leucorodia*. A rare straggler. Has been shot at Rye and at Pagham Harbour. The Chichester museum contains an example which was killed in that neighbourhood, and a fine specimen in my own collection was shot near Seaford, in the autumn of 1844.

Family SCOLOPACIDÆ.

COMMON CURLEW, *Numenius arquata*. Abundant during the winter on most parts of the coast.

WHIMBREL, *Numenius phæopus*. Provincial, Titterel. *Page* 8. Is rarely met with in the winter, but arrives about the time that the curlews depart for their northern summer quarters. Small flocks of whimbrels may be noticed during the month of May on the shores of Pevensey Bay, and in similar situations. I have found them between

Pagham and Selsey, as late as the middle of June, but although I have diligently examined the shingle for miles, I never could discover their eggs, or ascertain that others had been more fortunate than myself. The whimbrels observed at this period would seem to be the latest arrivals from the southern parts of the continent—probably backward-bred birds of the preceding year—and as they disappear before July, it may be supposed that they follow the example of their predecessors, in halting for a few weeks on the shores of Sussex, preparatory to resuming their journey to the North.

SPOTTED REDSHANK, *Totanus fuscus*. Has been killed at Shoreham, in the immature state.

COMMON REDSHANK, *Totanus calidris*. Not unusual on some parts of the coast at the period of the autumnal migration—the latter end of August or the beginning of September. Several have been killed at Pagham, and near the mouths of the tide-rivers at Shoreham and Newhaven.

GREEN SANDPIPER, *Totanus ochropus*. Is generally found during the autumn and winter on the banks of rivers, brooks and ponds, at a distance from the sea. Has not been known to breed in Sussex, but occasionally remains with us during the summer. In June, 1843, I observed four on the borders of a pond, through which ran a clear

trout stream, at Cocking, near Midhurst; but I could not discover a nest or eggs, and the local gamekeeper, whose attention I particularly directed to the subject, was equally unsuccessful. When disturbed at the pond, these birds used to retire into the great woods in the immediate neighbourhood. Suspecting that they might possibly be examples of *Totanus glareola*, I procured one of them in the following July, but on examination, it proved to be an adult male of *Totanus ochropus*.

COMMON SANDPIPER, *Totanus hypoleucos*. A summer visitor. Rarely found on the shore, but frequently met with on the banks of inland streams, among the grassy borders of which the nest is placed.

GREENSHANK, *Totanus glottis*. Of less frequent occurrence than the redshank, but makes its appearance about the same time. Haunts and habits similar.

AVOCET, *Recurvirostra avocetta*. A rare visitor. Small flocks have occasionally been met with, but the bird has generally been found alone. Three were killed, out of a party of six, at Pagham Harbour, some years ago; and another on the banks of the Adur, above the old wooden bridge at Shoreham, by Mr. Hampton of Applesham. In February, 1848, an example occurred

near Hailsham, and on the 1st of September in the same year, my friend, Captain Shirley, shot a bird of this species at Lurgashall, about four miles north of Petworth, and nearly twenty from the sea. It rose at some distance, from the banks of a large pond, and continued to fly round his head for a considerable time in wide but gradually diminishing circles. This specimen, which he kindly forwarded to me immediately, was a bird of the year.

BLACK-TAILED GODWIT, *Limosa melanura*. A very rare bird in Sussex. I have never seen a recent example, but it has been killed once or twice, in the immature state, near Amberley; also on Pevensey levels and Rye marshes.

BAR-TAILED GODWIT, *Limosa rufa*. I will adduce this bird as an example of the vernal and autumnal migrations which I believe to be performed by most of the *Grallatores*.

In summer there are, perhaps, fewer of the *Scolopacidæ* in Sussex than at any other period of the year. About the beginning of September their numbers rapidly increase, being reinforced by parties arriving from their summer quarters in the North, on their way to the South of Europe. They are at this time, generally speaking, more abundant on our shores than at any other, although many of course remain with us during the winter, and may

be found at Pagham, Shoreham, Newhaven, and in similar localities. Godwits then appear in their plain grey garb, and are all equally wary and gunshy from repeated persecution; but about the latter end of March fresh detachments begin to arrive, the males presenting the gay ferruginous nuptial attire, for like all spring visitors from the continent—whether land, wading, or swimming birds—they are much farther advanced towards the plumage peculiar to the breeding-season than those which have sojourned here during the winter. The dunlins, which arrive at the same time, have the black breast fully developed. The curlew sandpiper—or pigmy curlew—now suddenly appears in his beautiful summer dress, and the same remark applies to many congenerous birds.

The practical observer or collector should not fail to look out carefully for good specimens during this brief but golden period. However regular hitherto his visits to their favourite haunts, yet his expeditions will have been comparatively fruitless and unsatisfactory until now, and the first intimation of the arrival of the strangers will probably be the appearance on some muddy bank, at ebb-tide, of a little party of confiding godwits, all in the full breeding-plumage, when perhaps not a single bird of the same species had occurred on any pre-

vious day during the season in the same state of feather.

RUFF, *Machetes pugnax*. A scarce bird in Sussex, except on poulterers' stalls. I never knew an adult male killed here during the summer, but have met with it at Pagham in the winter, when the plumage resembled that of the female, or reeve — the ornamental ruff having then disappeared. One of the latter was captured in a singular manner a few years ago near Hove. It flew into a birdcatcher's net, apparently attracted by the decoy lark. It was sent alive to Mr. Swaysland, of Brighton.

In a bird of the year the fore part of the neck and breast is of a reddish grey, or buff colour, and in this state of plumage it is sometimes mistaken for that rare bird, the buff-breasted sandpiper, by those who have never seen an example of the latter species. Mr. Yarrell has clearly pointed out the distinctions.

WOODCOCK, *Scolopax rusticola*. Abundant in many of the great woods of Sussex during the winter. Breeds regularly in some parts of the weald. At Hollycombe young woodcocks are found every summer,* and Sir Charles Taylor has

* Vide Jesse's 'Gleanings in Natural History,' vol. ii. p. 184.

shown me the female bird sitting on its eggs in a plantation within a few minutes' walk of the house. The nest is a mere hollow in the ground, lined with a few dead leaves. I have also seen another in the act of incubation, in an oak coppice at Barkfold, near Kirdford. By cautiously creeping towards the spot on my hands and knees, I succeeded in approaching within a few yards, and could see the full black eye of the bird apparently fixed upon me. When at last sufficiently alarmed to quit the nest, instead of flying away hurriedly, she quietly slipped off it, and ran with an almost noiseless pace for about twenty yards before she took wing. The eggs, four in number, were subsequently hatched.

GREAT SNIPE, *Scolopax major*. An occasional straggler. Has been killed on Pevensey levels, and one was shot in the month of October, a few years ago, by Mr. Trist, a wine-merchant at Brighton, on the Downs near the race-course, a singular locality for this bird.

COMMON SNIPE, *Scolopax gallinago*. Tolerably abundant in the winter, on moors and extensive tracts of low meadow land after the subsidence of great floods.

JACK SNIPE, *Scolopax gallinula*. Of less frequent occurrence than the last, but not uncommon.

SABINE'S SNIPE, *Scolopax Sabini*. So named by Mr. Vigors—the first describer of the species—in 1822, in compliment to the late Mr. Sabine, then the Secretary of the Zoological Club.

On the 5th of March, 1845, Serjeant Carter, of Chichester, to whose frequent success I have already alluded (vide Bee-eater), shot a very fine example of this, the rarest bird, perhaps, in the world. It rose from the banks of a stream called the Lavant, at Appledram, near Chichester Harbour. It did not utter a cry like the common snipe—a fact which coincides with the previous observation of Colonel Bonham. Only six instances of its occurrence are on record, and all of these in the British Islands.* I was fortunate enough to become the possessor of this prize. The plumage exactly resembles that of the specimen in the museum of the Zoological Society in the Regent's Park, from which the first description was taken by Mr. Vigors, as well as that in the possession of Colonel Bonham, shot by himself in Ireland, which I have since examined. Altogether it has very much the look of a diminutive woodcock, but is of a dark copper-colour, beautifully mottled with transverse pencillings of a lighter hue: the top of the head and back of the neck are of a

* Vide Yarrell's 'History of British Birds,' 2nd edition.

sooty black. In size it is intermediate between the common and the jack-snipe, but the beak is even longer in proportion than that of the former, and the legs shorter. This, of course, is only intended as a rough sketch of its general appearance: for specific details, the reader is referred to Yarrell's 'British Birds,' and Jenyns's 'Manual of British Vertebrate Animals.'

CURLEW SANDPIPER or PIGMY CURLEW, *Tringa subarquata*. Has been obtained frequently on the coast during the autumn and winter. Scarce in summer.

KNOT, *Tringa canutus*. Several are killed every autumn and winter, of the usual light grey colour. Less frequently met with in the spring and summer when presenting the ferruginous plumage peculiar to that season, except during the brief period that intervenes between their arrival from the continent and the resumption of their journey towards the North.

LITTLE STINT, *Tringa minuta*. Rather a scarce bird, but specimens have been obtained near Shoreham, Pagham, and Hastings.

TEMMINCK'S STINT, *Tringa Temminckii*. A very rare species. Mr. Yarrell says that he has seen examples which were procured in the neighbourhood of Chichester. About two years ago

one was shot at Cuckmere haven, and is now in the collection of Mr. Baillie, of Mellerston, N.B.

DUNLIN, *Tringa variabilis*. Abundant on most parts of the coast.

PURPLE SANDPIPER, *Tringa maritima*. Has been frequently shot during the autumn and winter.

Family RALLIDÆ.

LANDRAIL, *Crex pratensis*. A few are occasionally met with near the Downs on their arrival in April, at which time they are lean and in bad condition. Rarely found here during the breeding-season. At the period of the autumnal migration they are of frequent occurrence, more especially on the arable portion of the Downs. They are often flushed by sportsmen during September in clover fields, and are then excessively fat and highly prized by epicures.

Mr. Yarrell records an instance of two shooters in the neighbourhood of Battle, in this county, killing "fifteen couple of landrails in one day, and seven couple the next day." This of course was an extraordinary occurrence.

SPOTTED CRAKE, *Crex porzana*. Arrives from the continent about the latter end of March or early in April, and examples have at that period

been occasionally taken in an exhausted state, within the precincts of the town of Brighton. After a dark stormy night, in the spring of 1841, a spotted crane was found alive in the churchyard of Trinity Chapel, probably attracted—like many other migratory birds which have been captured in the gardens and even in the areas of the houses—by the long line of gas-lights which extends almost without interruption from Brunswick Terrace to Kemp-Town.

Specimens have been shot near Storrington in the autumn, and several were killed during the month of October, 1841, on Henfield Common.

LITTLE CRAKE, *Crex pusilla*. A little crane was caught alive a few years ago near Beeding chalk-pits, (vide Yarrell). I have also seen a specimen in the possession of the proprietor of the Dolphin Inn at Shoreham, which was shot by himself in that neighbourhood. I am not aware that a third example of this scarce bird has occurred in Sussex.

WATER RAIL, *Rallus aquaticus*. Has frequently been captured on the beach, and in different parts of Brighton, during the period of the vernal migration, under circumstances to which I have already alluded, (vide Spotted Crane). About the middle of April, 1842, a couple were taken in East-street, and several on the same morning within the areas

of houses on the King's-road and on Brunswick-terrace.

MOORHEN, *Gallinula chloropus*. Common on the banks of rivers, brooks and ditches.

COMMON COOT, *Fulica atra*. Not so generally distributed as the last species, but numerous on many large ponds whose banks are furnished with reeds and sedges.

Family LOBIPEDIDÆ.

GREY PHALAROPE, *Phalaropus lobatus*. Has been occasionally obtained in the spring—in the red plumage peculiar to the breeding-season—but more frequently during the autumn when returning to the continent from its northern summer quarters. During September, 1846, after a severe gale from the south-west which lasted for some days, great numbers of grey phalaropes suddenly appeared on various parts of the coast of Sussex: many were shot, others taken in a dying state, and some killed with stones as they were swimming among the breakers near the shore. They appeared almost simultaneously at Pagham, Worthing, Shoreham, Newhaven, and Hastings. By far the greater number of these phalaropes were birds of the year.

RED-NECKED PHALAROPE, *Phalaropus hyperboreus*. A very rare straggler from the North. A

few years ago a bird of this species was taken alive on the beach near Hastings, and subsequently preserved by Mr. Bissenden, a bird-stuffer in that town. In this species the rufous colour is restricted to the neck and breast, the upper plumage being generally of a dark lead tint. This, together with its smaller size, more slender and pointed bill, and proportionably longer legs, may at all seasons serve to distinguish it from the grey phalarope.

Order NATATORES.—Family ANATIDÆ.

GREY-LEGGED GOOSE, *Anser ferus*. The common wild goose of some authors. One of our rarest *Anatidæ*. Has been occasionally shot during very severe winters. I obtained two at Pagham, in 1839.

BEAN GOOSE, *Anser segetum*. Not unusual during hard weather.

WHITE-FRONTED GOOSE, *Anser albifrons*. Examples of this species are met with every winter on the coast.

BERNICLE GOOSE, *Anser leucopsis*. I procured a few specimens of the bernicle during December 1838 and January 1839 at Pagham Harbour, and it has occurred at Shoreham and Rye, but it can only be considered as a visitant of rare occurrence.

BRENT GOOSE, *Anser torquatus*. During the severe winter to which I have just alluded brent geese were unusually abundant at Pagham Harbour. I shot several myself. This is the best bird I ever tasted: the flesh is as tender and juicy as that of a teal, and there is a total absence of the fishy flavour which renders so many of our water-fowl unfit for the table.

EGYPTIAN GOOSE, *Anser Egyptianus*. Although unknown in Sussex until within the last few years, several examples of the Egyptian goose have occurred in different parts of the county. These were probably the descendants of birds which had been introduced into England from abroad; and which have been known in many instances to have escaped from ponds and ornamental pieces of water. One in my own collection was shot at Shoreham Harbour, in December, 1847. I have seen a specimen at Hollycombe which was killed in that neighbourhood. It has also been obtained at Bexhill, and in various parts of the interior.

HOOPER, *Cygnus ferus*. Wild Swan or Whistling Swan. An unusually severe winter always brings this bird to our coast. In January 1839 I saw several flocks at Pagham, and procured many specimens.

MUTE SWAN, *Cygnus olor*. Seen in a half-domesticated state on ponds and rivers. Some-

times a male of this species performs a sort of partial migration, and proves that he can make use of his wings when occasion requires it. A swan will then occasionally disappear, and all enquiries in the neighbourhood proving ineffectual, the loss is attributed to the poacher or the midnight robber, until perhaps it is discovered that the bird had only joined some solitary spinster on a distant pond, where she had been doomed to float for many years in "single blessedness."

COMMON SHELLDRAKE, *Tadorna vulpanser*. Not uncommon, but generally found in the immature state.

SHOVELER, *Anas clypeata*. Has frequently occurred during winter on different parts of the coast.

GADWALL, *Anas strepera*. Rather a scarce bird. Has been occasionally shot at Pagham and Shoreham.

PINTAIL DUCK, *Anas acuta*. An ordinary winter visitor.

WILD DUCK, *Anas boschas*. Common.

GARGANEY DUCK, *Anas querquedula*. Immature examples of the garganey are not unusual in the winter at Pagham, Shoreham, Rye, and Hastings. Adult specimens—particularly males—are rare.

TEAL, *Anas crecca*. Of frequent occurrence.

WIGEON, *Anas Penelope*. A regular winter visitant, in considerable numbers.

EIDER DUCK, *Somateria mollissima*. A very rare wanderer from the North. An immature specimen was shot by Serjeant Carter, in November, 1830, at Chichester Harbour, and two were killed some years ago, associated with a flock of brent geese on Rye Marsh.

VELVET SCOTER, *Oidemia fusca*. Rare. Seldom ventures on shore even in hard weather, but has been observed a few miles at sea, being, however, very wild and difficult of approach. I have a specimen which was killed off Selsey Bill.

COMMON SCOTER, *Oidemia nigra*. Abundant in the neighbourhood of the coast during severe winters, and may be observed in mid-channel at all times of the year. The fishermen call them "black ducks."

POCHARD or DUN BIRD, *Fuligula ferina*. Of frequent occurrence in inclement seasons, and equally acceptable to the wild-fowl-shooter and the gourmand.

SCAUP DUCK, *Fuligula marila*. Perhaps the most common species, after the wigeon, that is met with on this coast during the winter months.

TUFTED DUCK, *Fuligula cristata*. Almost as abundant as the last.

LONG-TAILED DUCK, *Fuligula glacialis*. Adult

specimens of the long-tailed duck are of rare occurrence in Sussex. It is strictly a winter visitor, and a continuance of severe weather is necessary to induce it to wander so far from its northern haunts. In 1839 I shot a young male, at Pagham Harbour, out of a flock of scaup ducks. Immature examples have occurred on other parts of the coast, near Chichester, Brighton, and Pevensey; and I have a specimen, which was shot as far inland as Amberley, during the hard winter of 1844-45.

GOLDEN EYE, *Fuligula clangula*. Adult males are unusual, but females and young birds are killed on the coast every winter, and on rivers and ponds several miles inland. I have shot it at Pagham, and have received several specimens killed at Burton and Pulborough, presenting that state of the immature plumage in which it has been called the Morillon.

SMEW, *Mergus albellus*. Like the golden eye, the females and young males of this species are most frequently met with. They have been killed in various parts of the county. I have, however, seen many examples of the adult male bird. One is in my own collection which was shot at Shoreham; there is another at Hollycombe, obtained in that neighbourhood, and a third at Burton,

which was killed on the upper pond. It has also occurred at Amberley, Pagham, and Newhaven.

RED-BREASTED MERGANSER, *Mergus serrator*. Males in the perfect plumage are very rare. Females and immature birds of both sexes have frequently occurred.

GOOSANDER, *Mergus merganser*. A rare visitor to Sussex, except during inclement seasons. Young birds have occasionally been killed at different places on the coast.

Family COLYMBIDÆ.

GREAT-CRESTED GREBE, *Podiceps cristatus*. Not uncommon on large ponds with reedy banks. Has been observed at Burton at all times of the year. Adult males have been killed at Chichester Harbour and Pagham. Generally met with in the immature state, when it is the Tippet Grebe of earlier authors.

RED-NECKED GREBE, *Podiceps rubricollis*. A few examples of this rare grebe have been obtained in Sussex, and all of these — I believe — on the coast, being more marine in its habits than any of its congeners. During March, 1847, a bird of this species, having been observed for some time swimming and diving near the beach opposite Brunswick-terrace, Brighton, was pursued by a party of

active rowers in a galley, and captured after a long chase. This specimen is now in my collection. The forepart of the neck exhibits a considerable portion of the ferruginous plumage peculiar to the breeding-season.

SCLAVONIAN GREBE, *Podiceps cornutus*. Seldom found in the adult state; but the young—the dusky grebe of Bewick — has been frequently obtained.

LITTLE GREBE or DABCHICK, *Podiceps minor*. Provincial, Mole-diver. Common on ponds and sluggish streams in the interior of the county.

GREAT NORTHERN DIVER, *Colymbus glacialis*. Old birds are scarce, but immature examples are killed every year on the coast, and occasionally in the interior.

BLACK-THROATED DIVER, *Colymbus arcticus*. Appears to be the most uncommon of the three divers, particularly in the perfect state of plumage. I have a remarkably fine adult specimen which was shot in Chichester Harbour during the winter of 1845. I have seen another in the museum of the Mechanics' Institute at Hastings, which was killed in that neighbourhood; and a third in the Chichester collection which was sent from Selsey. Immature birds have frequently been obtained on the coast.

RED-THROATED DIVER, *Colymbus septentrio-*

nalis. Common along the shores of Sussex during the latter part of winter and early spring, but very few of the examples then observed or procured have the red throat, which is characteristic of the breeding-season.

Family ALCADÆ.

COMMON GUILLEMOT, *Uria troile*. Provincial, Willock or Willy. Breeds at Beachy Head, but is less abundant there than formerly. Is frequently met with in the Channel, a few miles from the shore, during the winter.

LITTLE AUK, *Mergulus alle*. Occasionally driven to our coasts by severity of weather. In the autumn of 1841 several were killed. On the 5th of November, in the same year, one was caught in a shrimp-net, near Cuckmere Haven; and after a violent storm in December, 1848, a specimen was captured at Newhaven.

PUFFIN or COULTERNEB, *Fratercula arctica*. Provincial, Sea Parrot. These birds have no breeding-station on the coast of Sussex, but emigrants from the Isle of Wight occasionally visit our shores. These are generally immature birds.

RAZOR-BILL, *Alca torda*. Provincial, Parrot-billed Willock or Willy. Breeds at Beachy Head. During winter great numbers are killed a few miles at sea, off Hastings.

Family PELECANIDÆ.

COMMON CORMORANT, *Phalacrocorax carbo*. Provincial, Seaford Shag. A small colony is established at Seaford Cliff during the breeding-season. Stragglers from the Isle of Wight continually pass along the coast, and a bird of this species now and then makes his appearance on large ponds and flooded tracts of low land in the interior.

GREEN CORMORANT, *Phalacrocorax graculus*. Of very unusual occurrence. I have seen one or two examples — immature — which were killed at Pagham Harbour during the hard winter of 1838-39.

GANNET, *Sula alba*. After the severe storms which attend the autumnal equinox, some of these birds are almost always captured on the coast of Sussex in an exhausted state. Individuals have been thus found near Pagham, Selsey, Shoreham, Newhaven, and Pevensey. The Brighton fishermen find them abundant in mid-channel during the herring-season. During the night they sleep on the water, so profoundly as frequently to allow the boats to pass over them.

Family LARIDÆ.

SANDWICH TERN, *Sterna Boysii*. Has been obtained at Pevensey, Selsey, and Rye in May

and June, as well as during the autumnal months.

COMMON TERN or SEA SWALLOW, *Sterna hirundo*. Provincial, Skiff. The wide-spreading bed of shingle near Pevensey Bay, between Eastbourne and Bexhill, is still the resort of many species of terns during the breeding-season; but they are not so numerous as they used to be, probably in consequence of the vast number of their eggs that have been taken during the summer, the sale of which amounted a few years ago almost to a regular traffic. I have heard that a person, who lived at that time near Bexhill, had a peculiar breed of dogs—a sort of cross, as I understand, between a setter and a water-spaniel—which he trained to hunt for the eggs of terns, ring-dotterels, and lapwings: and valuable coadjutors they proved. Quartering the ground like a pointer or setter, and taking advantage of the direction of the wind in the same manner, they would draw gradually towards the spot where the eggs of a tern had been deposited—whether the bird was at home or not—and drop within a yard of them. Such assistance must have greatly lessened the labour of egg-hunting on this stony desert, for it is generally a tedious process—as I know by experience—requiring much patience and long practice, so nearly do the eggs, both in colour

and form, resemble the surrounding flints and pebbles.

ARCTIC TERN, *Sterna arctica*. Is decidedly more numerous on Pevensey Shingle during May and June than the last species. In fact, this bird is here "the common tern," and would appear to be more generally distributed throughout the British Islands than any of its congeners. In May, 1842, large flocks appeared almost simultaneously at Devonport, Bristol and Gloucester, and at various places on the coasts of Hampshire, Sussex and Kent. This tern may at once be distinguished from the so-called common tern — with which it has evidently been frequently confused — by the prevalent light grey colour of the lower parts, which in the latter are of a delicately pure white. The tarsi are also much shorter.

GULL-BILLED TERN, *Sterna Anglica*. A very scarce and local visitor. First described by Colonel Montagu, who obtained examples at Rye. There is a specimen in my own collection which was shot in that neighbourhood.

LESSER TERN, *Sterna minuta*. Provincial, Little Skiff. Of frequent occurrence at Pevensey during the breeding-season and autumn.

BLACK TERN, *Sterna fassipes*. A rare bird in Sussex. Has occasionally been killed at the period of the spring and autumnal migrations,

when passing to or returning from its summer quarters in more inland counties.

LITTLE GULL, *Larus minutus*. A specimen of this scarce gull is in the possession of the Rev. Mr. Dennis, of Seaford, which was killed in that neighbourhood.

BLACK-HEADED GULL, *Larus ridibundus*. Abundant.

LAUGHING GULL, *Larus atricilla*. A rare species. Inserted here on the authority of Montagu. *Vide Yarrell*.

KITTIWAKE GULL, *Larus tridactylus*. Common.

IVORY GULL, *Larus eburneus*. Has been occasionally obtained in Sussex. Twice near Brighton. There is a specimen, which I have seen, in the possession of Mr. Johnson, a chemist at St. Leonard's, which was found on the beach in a dying state; and during the winter of 1848 an example occurred near Rye.

COMMON GULL, *Larus canus*. Less generally distributed in Sussex than in most maritime counties. Is occasionally met with in the interior.

LESSER BLACK-BACKED GULL, *Larus fuscus*. Far from common, although occasionally seen on different parts of the coast. A few breed at Newhaven, on the same cliff as the herring gulls.

HERRING GULL, *Larus argentatus*. Abundant at Newhaven during the summer.

GREAT BLACK-BACKED GULL, *Larus marinus*. Provincial, Parson Gull. So called from a supposed resemblance in the arrangement of its black and white plumage to the hood and surplice of a clergyman. Adult birds are not numerous, and are generally observed alone.

GLAUCOUS GULL, *Larus glaucus*. An immature example of this scarce gull was captured by a boy, from off the chain-pier at Brighton, with an instrument called a "click," to the use of which a certain portion of the juvenile population of that town are much addicted. It consists of a cork rudely fashioned after the likeness of a fish, over which is stretched the skin of a mackerel. From this two hooks project, which, however, are rendered the most attractive portion of the bait by being covered with tempting morsels of liver. A long line is then attached to it, when it is thrown into the sea and suffered to float away with the tide to a considerable distance. Many gulls of different species are thus taken every year.

The glaucous gull is as large as the great black-backed gull. When adult it is nearly white, but young birds may be distinguished from those of the latter species by the *shafts* of the wing-feathers being always of a light colour.

COMMON SKUA, *Lestris catarractes*. A rare wanderer from the North. Has occurred on dif-

ferent parts of the coast, generally reduced to a state of starvation. A few years since, in the month of November, a baker's boy captured a great skua on the beach at Kemp Town, which was in the act of devouring a dead cat, and was with difficulty separated from its savoury meal. This specimen was preserved by Mr. Swaysland. About the same time another was killed at Worthing. A severe storm had prevailed for some days previously. An individual of this species has also been shot at Hove, while feeding on carrion; and another was picked up dead off the chain-pier at Brighton. All these examples were in imperfect plumage and much emaciated.

POMERINE SKUA, *Lestris pomarinus*. Of more usual occurrence than the last. Immature specimens have been killed near Bognor, Shoreham, Brighton, Newhaven, and Hastings.

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The reader is requested to correct the following *Errata* :—

Page 34, line 9 from the top, for *Frst's* read *First's*.

Page 45, line 11 from the top, for *beomes* read *becomes*.

Page 107, heading, for BEECHY HEAD read BEACHY HEAD.

Page 119, heading, for SNIPES-HOOTING read SNIPE-SHOOTING.

Page 203, line 4 from the bottom, after *shot*, read *by a person of the name of Markwick*.

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